THE APPLIED RESEARCH INSTITUTE-JERUSALEM (ARIJ)

Towards a Sustainable Palestine

Annual Report Summary 2008

ORGANIZATION INFORMATION:

Name of Organization: The Applied Research Institute – Jerusalem (ARIJ)

Address of Organization: P.O. Box 860, Caritas St., Bethlehem, West Bank, Palestine.

Telephone Numbers: +972 (0)2 2741889 / 2748234

Fax Number: +972 (0)2 2776966

Website: www.arij.org

Contact Person:
Dr. Jad Isaac (General Director)
E-mail: jad@arij.org

TABLE OF CONTENTS

INTRODUCTION

The year 2008 has witnessed a series of dramatic events, the Israeli air strikes onto the small but highly populated Gaza Strip has killed hundreds of people and injured thousands of more and this may only be the start, as Israel vows to expand its operation. The Palestinians in Gaza have already gone through very difficult conditions this year as Israel imposed a siege on Gaza by blocking the movement of people and supplies of daily essentials, and with no electricity for long stretches of time. The hospital system was already on the brink of collapse, with medical supplies running out, when it was put under greater stress by the bombings.

The Israeli army has continued to intensify its restrictions at checkpoints, increase the number of roadblocks and the Segregation Wall's length throughout the occupied Palestinian Territory (OPT). Thus, the Segregation Plan appropriates at least 40% of the total West Bank area. This has had negative effects on the different aspects of the Palestinian communities, the environment, economy, health, education, freedom of movement, freedom of religion, human rights and crucially on the peace process as a whole.

In 2008, the near collapse of the financial system was the most significant global event. In the last quarter of 2008, the drama-filled financial crisis was transformed into a "real economy" crisis, characterized by the continuous industrial company losses, falling consumer demand and rising job loss. Culminating in declines in the overall GDP. In the OPT, the economy has experienced dramatic changes in the year 2008, repeated closures imposed by the Israeli Authorities on the movement of people and goods in the Palestinian territories creating a negative impact on the economy. Economic factors keep fluctuating, which creates fear and concern. The devaluation of the US dollar in relation to the Israeli Shekels and the continuous increase of the consumer price index are increasing the burden and anxiety of the Palestinian people.

The 2008 shortage of water is very series as rainfall in the northern West Bank was 64% of the average, while in the southern areas; it was just 55 % Palestinian Water Authority (PWA). As a result, the water stored from rainfall has already been used. The PWA estimates this year's water shortage in the West Bank to be 43 to 62 million cubic metres. The total water consumption in the West Bank is 57 mcm per year. Moreover, drought and water scarcity have tremendously affected agricultural outputs, in addition to damage due to frost which has been reported in the winter season and has undoubtedly led to decrease in agricultural production.

ARIJ has empowered and strengthened its relation and partnership with other organizations and has participated with the Palestinian policy and decision makers, donors, funding providers and international organizations in the planning of both behavioural and psychological coping strategies in order to deal with the current and potential problems in the OPT.

Thus, in the year 2008, several projects and consultancies were created through the institute's main programs that include Sustainable Agriculture, Natural Resources Management and Information Technology. In addition, ARIJ is continuing to empower the capacity of the Palestinian Authority and Community Based Organizations (CBOs) in the fields of agriculture, environment, geo-informatics, natural resources management and good governance. All of these mentioned are to contribute in solving the focal mission of ARIJ, which is to reach a sustainable Palestine.

EXECUTIVE SUMMARY

In spite of the difficult political, economic, and social situation in the West Bank and especially Gaza, with the rising levels of insecurity, unemployment, and poverty among Palestinians, ARIJ had intensified its activities in cooperation with other organizations and NGO's in order to overcome this critical period. They have concentrated their efforts on the food security and contributed to mitigate the water crisis through the implementing of developmental and applied projects on the household

level, in the extension of their efforts to include management of water resources and sanitation, such as irrigating crops by treated grey and black water for irrigation.

On the level of supporting the household agro-developmental activities and improving food security in marginalized communities, the following interventions were achieved:
- Constructing and rehabilitating 225 rainwater harvesting cisterns
- Establishing 60 Grey Waste Water Treatment Units
- Providing and establishing 497 home garden with drip irrigation systems
- Providing vegetable seeds and seedlings, and fruit trees seedlings for 497 home garden
- Constructing 140 small greenhouses
- Distributing 30 tons of seeds for 519 households
- Establishing 120 household laying poultry farms
- Improving 50 household small ruminant farms
- Conducting 57 training workshops
- Conducting 1500 days of services for extensions and technical support

In the field of water management, ARIJ has succeeded in constructing 20 new top-roof rainwater harvesting cisterns with a capacity of 70 m3 per year. This is in addition to the drip irrigation networks and cultivation of 20 dunums of home gardens as well as a medium scale wastewater treatment plant with capacity of 50 m3/day. This was constructed to improve access of approximately 1300 households to wastewater services in Nahhalin village at Bethlehem Governorate. Additionally, the institute has finished the construction and installation of 55 Wastewater Treatment Plant in Battir, Nahhalin, Al Khader, Al Walaja, and Al Shawawra localities in the Bethlehem Governorate; 180 plants are expected to be finished in 2009-2010. Moreover, an Initial Environmental Examination (IEE) study was prepared for the project entitled "Roads Rehabilitation Project – Phase IV" by ARIJ project team and provided to the CH2MHILL.

On the geopolitical level, ARIJ continued to monitor Israeli activities (such as building and expanding settlements, land confiscation, house demolition, creating new outposts, uprooting trees, etc) in the OPT, as more than 406 case studies were prepared, which is more than double the case studies produced in 2007 (200). In addition, the notable increase in the number of annual hits on POICA's website in 2008, (9,059,361 Hits) in comparison to the year 2007 (7,498,692 Hits), attest the website's significance as a main and reliable source of information.

On the institutional level, ARIJ continued its institutional development in order to meet the high requirements of the international donors and to better serve the Palestinian community, and to strategically plan for ARIJ future success. Accordingly, ARIJ has completed the financial and the HR manual, both with supporting software, as well as the e-office application, whereas the administration and grant management manuals are expected to be completed in the year 2009. ARIJ has finished the construction of the additional two floors on ARIJ new building and expects to complete the internal finishing in 2009. Due to the significant increase in ARIJ activities, ARIJ budget reached US $3,218,738 compared with US $2,850,000 the previous year. There is a considerable increase of ARIJ budget for the last three years that provide good evidence for ARIJ professionalism, transparency, integrity and reliability in implementing its projects.

Finally, in 2008, ARIJ's dissemination of information was significantly achieved by publishing 406 case studies, 30 special reports, 3 booklets and leaflets, 42 newspaper articles, 13 papers, 9 posters, 1 book, 2 road maps, and 1 ARIJ calendar for the years 2009, 2010 and 2011. Furthermore, ARIJ has conducted 82 presentations, 58 conferences and workshops, 210 meetings and visits.

CHAPTER I: ORGANIZATIONAL STRUCTURE AND MANAGEMENT

1.1 General Assembly

ARIJ enjoys the services of 27 professionals who constitute the General Assembly of the institution. Six new members have joined ARIJ's General Assembly in 2008. The General Assembly specializations cover a range of fields including: engineering, business, information technology, history, psychology, economics, science, and more. They provide ARIJ's Administrative Committee with policy guidelines and strategic guidance. In addition, they discuss and approve the annual administrative and financial reports as well as the annual budget.

1.2 Administrative Committee

The General Assembly is committed to financial reliability and success, effective management, values of transparency, good governance and for strategically planning its future. Every two years the General Assembly elects an Administrative Committee to be responsible for implementing and following up the strategies and policies set by the General Assembly.

On September 2008, the ARIJ's General Assembly and Administrative Committee called for a meeting and elected new members for the Administrative Committee. According to ARIJ bylaws, they increased the number members of the Administrative Committee from 7 to 9. The new elected Administrative Committee members are as follows:

1- Eng. Daoud Istanbuli (President)
2- Dr. Saleem Zughbi (Vice President)
3- Dr. Nabeel 'Edeily (Secretary)
4- Dr. Nasri Qumsieh (Treasurer)
5- Dr. 'Adnan Musallam (Member)
6- Dr. Spero Altams (Member)
7- Ms. Fida' Abed Allatif (Member)
8- Dr. Norma Hazboun (Member)
9- Dr. Khalil Rashmawi (Member)

During the year 2008, ARIJ's Administrative Committee held 11 meetings to supervise ARIJ's policies plans and strategies. The committee facilitated the development and improvement of ARIJ's management system, as well as the evaluation, documentation, follow up, and editing of financial and managerial processes, and the human resource department managerial system. They also assisted ARIJ in the development and promotion of links with other partner public organisations and strategic alliances within the private, commercial, and voluntary sectors.

In 2008, ARIJ's Administrative Committee made several decisions, the main decisions and actions could be concluded as follows:

- Assisting ARIJ in the development of medium and long-term strategic policies and plans.
- Changing the basic law of having 7 members to 9 members in the Administrative Committee.
- Compensating the employees for the devaluation of the US dollar in respect to the Israeli Shekel as well as compensating for the increase in inflation rates.
- Adopting new cadre of salaries to start effectively at the beginning of 2009.
- The Administrative Committee is determined to find sources of funds to complete the internal finishing of the two floors of ARIJ's new building.

Additionally, four different assessments by external evaluators were carried out for ARIJ; the Administrative Committee reviewed the assessment reports and in view of that recommended the proper changes.

CHAPTER II: ARIJ PROGRAMS AND ACTIVITIES

The year 2008 witnessed the implementation of quality projects aimed at improving food security at the household level, increasing living conditions for needy families, improving resources, water, and land management, as well as increasing job opportunities in the' targeted project areas. ARIJ has also provided intensive training, extension, and capacity building activities, in addition to innovative research activities and technology adaptation, in the field of natural resource management, environment, land use and technology. ARIJ has three main programs, namely the Natural Resource Program, Sustainable Agriculture Program and Information Technology Program.

2.1 Natural Resource Management Program

The Natural Resource Management Program is constituted of three departments, namely the Water and Environment Research Department, Urbanization Monitoring Department and Geo-Informatics Department. Following are the executed and ongoing projects carried out by the Natural Resource Program during the year 2008:

"Introducing Small Scale Activated Sludge Filtration System for Wastewater Treatment in the rural areas of Bethlehem and Hebron Governorates in the West Bank". This project, funded by Mennonite Central Committee (MCC), started on the 1st of April 2009 and will last for 42 months. This project has been designed to test the efficiency of a small scale wastewater treatment technology at a household level, imported or locally developed, that is low-cost, potentially appropriate for urban environment and will enable the households to treat and reuse the wastewater in agricultural production. This achievement will improve waste water management at a household level through the adoption of proper technology. During the year 2008 the project team completed the following activities: 1) Feasibility study for the implemented units; 2) Construction and installation of 55 Wastewater Treatment Plant in the Bethlehem Governorate; 3) Publication of the Handbook of Wastewater Treatment Plant that includes instructions and information, and short Awareness-raising film; 4) Building a meta-database and a structured GIS based information system composed of the beneficiary and wastewater treatment plant database.

"Environmental Sustainability for a better life: An integrated Approach for Localizing Agenda 21 in the Bethlehem District". This project is funded by the European commission (Life-Third Countries Programme) and the Swiss Agency for Development and Cooperation (SDC), and is implemented in partnership with the Italian NGO, The Regional Centre for Interventions for Cooperation (CRIC). It was started on the 1st of February 2006 and completed by the end of September 2008. Bethlehem 21 Project is a Palestinian initiative responding to Chapter 28 of Agenda 21 whereby local authorities are called upon to undertake a consultative process to develop and implement a "Local Agenda 21" for and with their communities. Bethlehem 21 project is aimed at developing the capacities of the targeted local authorities including the Municipalities of Bethlehem Governorate in order to enable them to enter into dialogue with citizens and local organizations and to develop local sustainability action strategies or "Local Agendas 21". This project resulted in: 1) Having strong advocates of the sustainability initiative among the involved local and national authorities; 2) Securing broad public participation of community members and raising their awareness level with respect to localizing Agenda 21; 3) Fostering trust in local and national authorities among the community members; 4) Establishing a comprehensive GIS based information system for each local authority; 5)

Strengthening the technical capacities of the targeted local authorities in GIS, database management and environmental monitoring; 6) Producing baseline community profiles to provide an assessment of the communities' environmental and socioeconomic conditions; 7) Understanding peoples' perceptions of their environmental futures and social well being; 8) Adoption of the recommended actions and strategies by the local authorities. Moreover, a national conference "Local Sustainable Development in the Bethlehem Governorate was successfully organized by ARIJ under the auspices and participation of H.E. Dr. Salam Fayyad, the Prime Minister and with the participation of Engineer Ziad Bandak, the Minister of Local Government.

"Utilization of Solar Energy in lightening Jub-Altheib Village in the West Bank". This project, funded by the United Nations Office for Project Services (UNOPS), started on the beginning of December 2008 and is expected to last for ten months. The project aims at utilizing of solar energy in lighting the Jub-Altheib Village/Bethlehem Governorate main road, mosque, and public community rooms for the project community (140 persons). This project will also raise awareness of targeted community on climatic change mitigation, focusing on energy efficiency and saving techniques; assessing the possibility of replicating this 'pilot project' on other 78 communities that lack power in the Occupied Palestinian Territories.

"Monitoring Actions and Transformations in the Palestinian Territory to Develop Policies and Strategies for Conflict Management and Peace Building". This project is in its fourth phase, as it is a continuation of the settlement projects phases 1, 2, and 3. It is funded by the European Commission (EU) under the program name "Partnership for Peace", and is carried out by ARIJ and its partner the Land Research Center (LRC). This project didn't stop its activities since the starting of phase one; however, the official duration of phase four is twenty eight months starting by December 2008. The main functions of the project are to monitor all Israeli related activities in the OPT (the West Bank and the Gaza Strip) and asses the impact of these Israeli activities on the various aspects of Palestinian society, including environmental impact and social behaviour, and examine how it influences the political scene and the overall peace process. It also aims to show how the Israeli activities in the occupied territory become obstacles to peace; how they aim to hinder possible breakthrough, and how the consecutive Israeli governments constantly aim to control facts on the ground to manipulate the outcome of any future negotiations. Specifically, the project tends to gather precise information regarding settlement related activities, in terms of confiscation of Palestinian land, and plans set to establish new Israeli settlements, or expand existing ones. Moreover, the project follows-up on various related Israeli activities, which include the Israeli network of bypass roads created to link the Israeli settlements with each other and with the road grid inside Israel. The project aims to examine how the settlements and bypass roads have influenced the overall living status within the OPT and how it has shaped the political scene there as well. The project follow-up details the decade old Israeli phenomenon known as "outposts" and identifies their functions and classification, according to their location and examines how they are incorporated within the Israeli settlement program. Furthermore, the projects follow other Israeli activities and practices in the occupied territory, which include various types of road obstructions (checkpoints, roadblocks, earth mounds, etc) and informs how they work to divide the occupied Palestinian territory and restrict the movement of the Palestinian inhabitants. (For information on the Israeli Military Orders in the OPT, visit our website: http://orders.arij.org/)

Next to the quality of POICA's team productions, the quantity of the produced online and hardcopy publications, the direct presentations and newspapers articles adds more value to the success of the project. Between January–December 2008, the project team produced 406 case studies (See Figure 1), 39 newspaper articles, 12 quarterly reports, 10 special reports and publications, and 66 presentations which were made during the designated time of the report, refer to our website http://www.poica.org/

Figure 1: Case studies written between 1997 and 2008
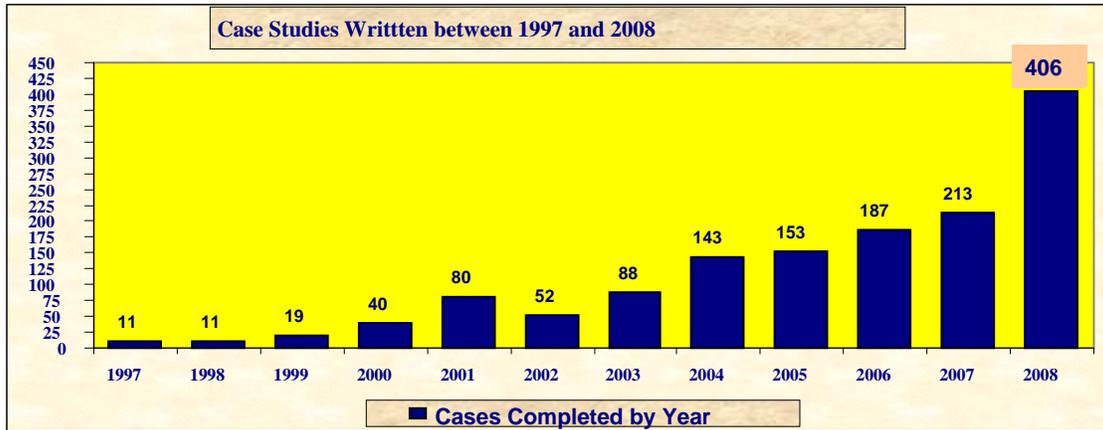
The climax of the project is manifest in the notable increase in the number of hits on POICA's website in 2008 in comparison to previous years, which indicates the increase in interest in the information published on the site and credibility it has as a main source of information. (See Figure 2)

Figure 2: POICA's website annual hits between 2001 and 2008.
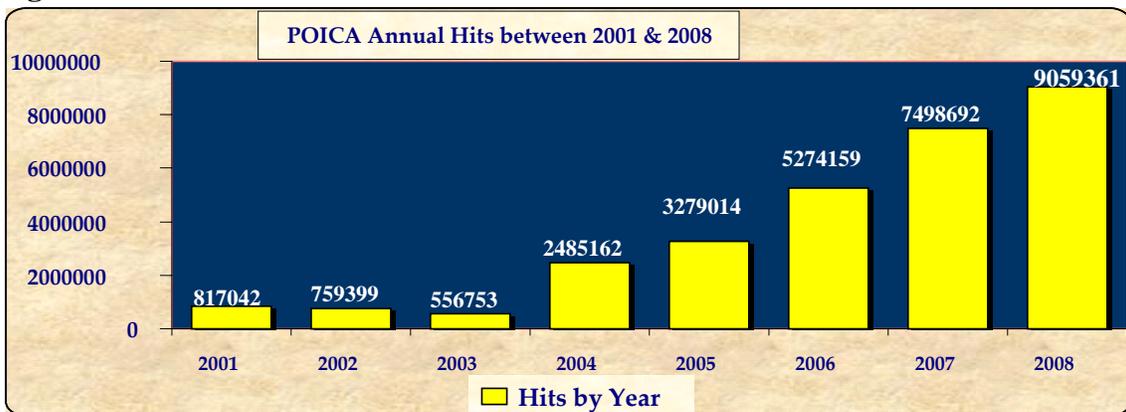
The disseminated information goes to European policy makers, Palestinian decision makers, and to local Palestinian and international organizations involved in monitoring the colonization activities, in addition to interested scholars and individuals.

2.2 Sustainable Agriculture Program

This program focuses on promoting sustainable agriculture to increase the profitability of agricultural production and food security in the OPT. Additionally, the program activities shall focus on improving the livelihood of vulnerable and marginalized societies in the Palestinian Territory through improving their accessibility to land, water, food, and biodiversity resources. Additionally, this program aims to assist decision makers and stakeholders in developing agricultural plans and strategies and improve the availability of reliable information and data as an effective management tool. Following are the executed and ongoing projects carried out by the Sustainable Agriculture Program during the year 2008:

"Improving Livelihood and Food Security in the South-eastern Part of the West Bank Project, Phase II". This project was funded by USAID and implemented by ACDI/VOAC in partnership with ARIJ. The second phase of the project started in

October 2007 and completed by the end of July 2008. The project aimed to improve food security and livelihood through contributing to sustainable income, agricultural production security, waste water and water management, developing capacities, skills, and community participation for marginalized, impoverished and vulnerable rural households. The second phase was designed to support the benefited 450 beneficiaries from the project phase one by providing them with extension services, and extending its activities to benefit an additional 340 marginalized households in seven villages in Bethlehem and Hebron districts. Through the second phase ARIJ and ACDI/COVA had succeeded in targeting 17 communities in both Bethlehem and Hebron Governorates.

On the other hand, ACDI/VOCA has continued its support for the joint food security program in the Southern part of the West Bank, through supporting the construction of 40 rainwater harvesting cisterns and home gardens in Toqu' and Sa'er areas in Bethlehem and Hebron Governorates, in addition to training the beneficiaries in a food security program on composting techniques continuing to provide them with extension services. Furthermore, a research study will be conducted on the impact of compost on improving soil holding capacity and irrigation calendar to optimize the use of water resources for irrigation. This activity was started on November 1st 2008 and will be ended by March 2009. This fund is provided from USDA, the Ministry of Agriculture – USA.

"Enhancing Food Security in Marginalized Rural Areas of Bethlehem and Hebron Governorates (West Bank)". This project, funded by the Spanish Agency for International Cooperation (AECI), started in 1st of December 2007 and was completed by the end of November 2008. This project aimed at improving the livelihood and food security of 730 marginalized, impoverished and vulnerable rural households (80% female headed) in 20 villages of the Bethlehem and Hebron Governorates through contributing to agricultural production security, water management in addition to developing capacities, skills of targeted farmers.

"Strengthening of the Commercial and Marketing capacities of small and medium sized vulnerable Palestinian farmers from the Tubas Region through trade to Israeli and International Market". On March 1st, 2008, a joint project with ACF-Spain and ACAD (Arab Center for Agriculture Development) on strengthening the commercial and marketing capacities of small and medium scale Palestinian farmers from Tubas to Israel and International markets was started. The project is funded by the Catalan Development Aid Agency - Spain and its activities are planned for 24 months. The project is targeting 250 farmers and their families (1750 people), whose finances depend mainly on small-scale farming and who have been affected on a socio-economic level by the consequences of the Intifada. These farmers are members of 5 agro-cooperatives distributed in the Jordan Valley area and are characterized in their diversified agro-production activities. The project is going to develop the capacities of these cooperatives also. Several tarring workshops, baseline studies, and marketing certification systems manuals will be produced. Furthermore, the farmers will receive some assists to improve their practices in harvesting and packaging their agro-products.

"Food Security Information System for Tubas, Bethlehem, and Hebron Governorates (FSIS)". The FSIS project is a one of the approved projects by UN-CAP 2008 in the OPT under food aid and food security sector, which was submitted by ARIJ. It is funded by Spanish Cooperation and started in December 2008 and will end in December 2009. This project comes in response to the food insecurity status in OPT especially in Tubas, Bethlehem and Hebron Governorate where the largest percentage of food insecure population exist. Accordingly, the project aiming at investigating food security and vulnerability status of vulnerable households of Tubas, Hebron and Bethlehem Governorates, and improving awareness and capacities of stakeholders

to assist them in developing proper food security strategies, through creating food security information system (FSIS). The project will also improve the awareness of food insecure and poor households toward better food practices and support the poorest of the poor to increase their food production activities in a sustainable approach. During the implementation of the project an analytical study will be conducted to improve understanding of the nutritional performance of poor people, improve the poor people awareness about better nutritional food intake performance, and investigate the current nutritional diseases due to the imposed reduction in amount, quality and type of food eaten by poor people. The project results will be disseminated to all relevant stakeholders and organizations through its web-database, awareness campaigns, and activated networks. Additionally, some agro-developmental activities on household level to improve their food production capacities and income generation sources will be conducted.

"Village Profile and Azahar Needs Assessment in Bethlehem Governorate". This is the second phase of the village profile program including all socio-economic, physical and natural features, education, and challenges for development especially in agriculture and environment. This project will achieve the same results of the Hebron Governorate conducted village profile and the project profiles will be complied on the same website to be accessible to users. This project is funded by the Spanish Agency for International Cooperation for Development (AECID) and the Azahar Programme under CAP-Spain funding program. It is started on October 2008 and will be completed by September 2009. During the year 2008, the Sustainable agricultural Program studied the forested areas in Hebron Governorate, where the two forests; Wadi Al Quf and Al Qarin forests were surveyed for their biotic characteristics including dominant plant taxa and their plant associations, plant growth rates and plant cover density, etc. and abiotic characteristics including available natural resources, topography, climate, soil etc. All data were collected in a database system and linked to the Geographical Information System. The project is on-going where further analysis for collected data is needed. During the year 2009, ARIJ is planning to study new Palestinian forested areas to develop a comprehensive report about Palestinian forests in an attempt to increase stakeholders' awareness and thus to reduce the pressures and maintain such resources.

"Village Profile and Azahar Needs Assessment in Hebron Governorate". This project was started in November 2007 and it will be completed by April 2009. It is funded by the Spanish Agency for International Cooperation for Development (AECID) and the Azahar Programme under CAP-Spain funding program. The project was designed with the purpose of studying, investigating, analyzing and documenting the socio-economic and natural resources conditions and the needed programs and activities to mitigate the impact of the current unsecure political, economic, social and natural conditions in Hebron Governorate with main focus on the agricultural sector--with particular emphasis on the Azahar program objectives and activities. A community questionnaire was completed for the 93 main localities across Hebron Governorate. The data provided in the questionnaire, as well as other data from the Palestinian Central Bureau of Statistics (PCBS) and the Ministry of Agriculture (MoA) was analyzed and integrated together in one village profile, which included data about Demography, History, Education, Economy, Natural Resources, Agriculture, Infrastructure, Institutions and Services. Six Participatory Rapid Appraisal (PRA) workshops were conducted in cooperation with the Joint Services Councils and Municipalities. Community leaders, farmers, women association representatives, local authorities' representatives and local co-operative representatives attended. Currently, the IT Program in ARIJ is developing a database for the village profiles in both languages, Arabic and English. The data will soon be posted on the internet in a well organized and comprehensive database; easy to navigate and accessible to all. Additionally, seven integrated village profiles on the joint service council levels will be printed in English and Arabic and will be available on the website. Furthermore, twenty project profiles will be developed for potential projects required in the targeted areas, based upon the needs assessment. Generally, the results of conducted activities during the year 2008 by the Sustainable Agricultural Program are summarized in the following table:

Table 1: Distribution of completed agricultural achievements for the year 2008

Activity	No. of Beneficiaries	Achieved interventions	Results
Constructed and rehabilitated Rainwater harvesting cisterns	225 households	225 cisterns	17,850 m^3 storage capacity of water
Establishing GWWT units	60 households	60 units	15,330 m^3 treatment capacity of Grey water per year
Providing drip irrigation system	497 households	497 system were provided	242.6 dunums of home gardens and greenhouses were provided with drip irritation networks.
Home gardens Establishment	497 household	497 home gardens	230 dunums of home gardens were cultivated
Construction of small greenhouses	140 households	140 Greenhouses	12.6 dunums of greenhouses were constructed and planted
Supporting Filed crops cultivation	519 households	30 tons of seeds were distributed	2300 dunums are expected to be planted
Small Laying poultry Farms	120 households	120 farm with 72 laying Chickens each	potential production of 2.5 million eggs per year
Livestock small farms improvement	50 households	50 farms	serving 1,250 heads of small ruminants
Capacity building	1,750 persons	57 training workshops conducted	63% of the trained persons were women
Household capacity building and technical support	15,706 household visits	Extension and technical visits	a sum of 1500 extension and technical days conducted

2.3 Information Technology Program

The IT program provides assistance to all units at ARIJ by installing software applications, maintaining hardware, and maintaining and updating the local area network. Currently one of the major tasks that the unit performs is to develop virtual and interactive programs for the different units and projects at ARIJ. The IT program members work closely with the Geo-Informatics Department in developing GIS stand-alone and web applications. Following are the executed and ongoing activities carried out by the Information Technology Program during the year 2008:

1. *ARIJ Electronic Office application:* Working on the upgrading and developing of ARIJ Electronic Office application (E-Office) as an internal monitoring and evaluation system that includes the following:
   a. Human Resource (Payroll, Timesheet, ARIJ internal Forms processing ...etc)
   b. Project Management (Activities, Donors …etc)
   c. Finance (Requisition forms, Tenders and Quotations …etc)
   d. Administration

It has been tested and approved to be launched starting at the beginning of the year 2009. It is currently in the final phase of development, which is to continue checking and testing its performance, and upgrading with further required reports. This project is a combined effort from both the IT and Administration Unit.
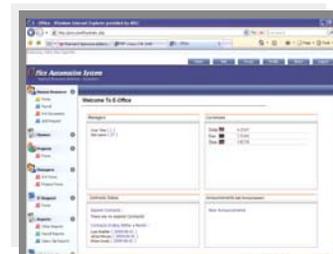
2. ***Turbonet Driving School Application:*** Further development on the consultancy for a German based driving school in which IT unit developed an online written driving exam system that will be used by students to study and train for the official exam. Currently the IT program will be updating the system to include different languages. http://turbonet.dyndns.info

3. ***Web application for ARIJ targeted areas:*** The development of a web based application to monitor the targeted areas benefiting from the agricultural projects that ARIJ implemented.

4. ***Website design for the Village Profile project.*** Design and development of a data driven website for the village profile project implemented by the Sustainable Agriculture Program, in which the IT program is responsible for designing the site, data structure, and the use of Scalable Vector Graphics technology for mapping information. http://proxy/vprofile

5. ***Network administration and maintenance.*** The IT Unit is responsible for the planning, the installation, and the maintenance of the information technology (IT) resources of ARIJ.

6. ***UNIX and Windows server administration.*** The IT Unit is implementing, troubleshooting, analyzing, and maintaining UNIX and Windows server administration.

7. ***Food Security Atlas:*** IT program has built the geospatial database in coordination with both the Geo-informatics and Agriculture Units in which it will be used for the project. The Unit will be constructing a website in which a search engine for the atlas indicator will be accomplished with the ability to view all maps used in the atlas on the site using Scalable Vector Graphics SVG.

8. ***Interactive Atlas of Jerusalem:*** Since it was announced that Jerusalem would be the Arab Cultural Capital for the year 2009, the IT program and GIS unit submitted a project proposal for developing a we   b based interactive atlas of Jerusalem. The project was approved by AlQuds 2009 committee and should start in the year 2009. The Project will be implemented as a joint project between ARIJ and the Center of Jerusalem Studies.

9. ***ARIJ Website:*** The unit is responsible for maintaining and updating the ARIJ website, in the year 2009 ARIJ will be updating the main site with both new design and structure that the IT program has suggested. www.arij.org

10. ***METIS (MEdiTerranean Introduction of GNSS Services).*** The main objective of this project is to facilitate the introduction of GNSS services in the MEDA area. To achieve its goal, METIS has put in place a program of three main activities, running throughout the MEDA region:

   ➢ Activity A: Assessing necessary policies and actions in favour of a progressive GNSS services market implementation
   ➢ Activity B: Running a training and awareness programme
   ➢ Activity C: Implementing GNSS service demonstrations.

These activities are performed in parallel with the relevant infrastructure preparation for GNSS SIS (Signal In Space) Provision Activity in the region, undertaken by the European Space Agency (ESA). The outcomes are Data Collection Server and Station, which will be installed at ARIJ. The Data results will be automatically sent and stored from the Stations to the Server, as in the European Data collection network. This project is funded by the European Commission (EU) and will last for a period of 30 months.

11. ***Training Workshops:***

   1. ***Open Source GIS Application***
      The IT Program gave a presentation on the use of open source GIS application in the universities in Palestine, the workshop was conducted by Alquds University on their premises. Most of the organizations related to GIS participated in the workshop.

   2. ***Food Security Atlas kick-off workshop***
      The IT Program participated in the kick-off workshop for the security Atlas project at ARIJ; a presentation was prepared and presented regarding the unit's work in the project.

2.4 Services and Consultancies

ARIJ is an active and productive source of information and knowledge to the Palestinian community, as it is always looking to provide the best services using the latest technology and techniques. All ARIJ's departments and units are involved in training, conducting workshops, supporting and enhancing skills and capacities of the Palestinian communities. Thus, ARIJ is considered to be one of the major Palestinian institutes that provide training and consultancy services as well as practical information to a broad range of issues related to its programs and activities. ARIJ continually improves its services based on emerging technology and individuals' feedback and work closely with leading organizations, universities and providers. It provides simple, flexible and powerful solutions to locals and internationals. Following are the main consultancies and services completed or ongoing during the year 2008:

■ Improvement in Local Governance System in Palestine:

In August 2008, ARIJ signed a contract with the Japan International Cooperation Agency (JICA) country office for Palestine to conduct an integrated baseline survey for the active Joint Councils in the West Bank. The baseline survey initial project is entitled "Improvement in Local Governance System in Palestine", and is technically and financially supported by JICA for the benefit of the Palestinian Ministry of Local Government (MOLG). The Baseline survey was administrated by the Department of Joint Councils for Services, Planning, and Development (DJCspd) at the MOLG. Commissioned as part of the ongoing efforts to develop the capacity of Joint Councils to attain sustainable local governance system in the Palestinian National Authority (PNA), a final report that brings a new scope and both breadth and depth to the subject matter was delivered. However, the specific objectives of the baseline survey are outlined as follows:

1. To assess the present-day situation of the "business-as-usual" approach of governance in the benefited JCspd during the last 5 years and evaluate their performance in lieu of the current mandate given to these councils;

2. To evaluate the past and current policies and practices that the MOLG uses to regulate and support this form of local government units.

3. To develop a vision for the development of JCspd based on these findings and consequently explore and draft recommendations and blue prints of strategic planning towards sustainable Palestinian communities within the framework of an independent and credible future Palestinian statehood;

4. To build an easy-to-use database entry program that generates a concise profile of JCspds based on data collected during the survey; and

5. To integrate the obtained results in a comprehensive report including spatial, environmental, and socio-economic analysis.

The baseline survey was designed through regular deliberations on the available data sources, including literature reviews, published studies and statistics, field investigations, and mapping interpretations using extensive competency of Geographic Information Systems and Differential Global Positioning Systems.
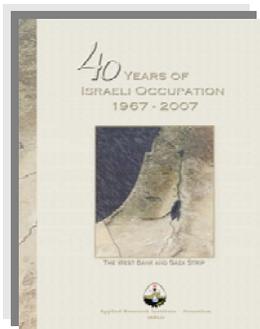
■ The Socio-economic and Food Security Atlas in the OPT:

The Socio-economic and Food Security Atlas in the OPT (SE-FSA) is a joint project for the World Food Programme (WFP) and ARIJ to develop a Food Security Decision Support System (FS-DSS) in the OPT in cooperation with all potential stakeholders. The SE-FSA will provide a systematic spatial analysis of the demography, socio-economy, education, agriculture, environment and water, food security, nutrition, and health datasets in the OPT (maps, text, analysis). The consultancy is done under the Sustainable Agriculture Program with the assistant of the Geo-informatics Department, and it is designed to accomplish its objectives within one year (End of July 2009). The main objectives of the consultancy are:

- To consolidate and unify the available spatial information in view of supporting the humanitarian aid as well as social safety nets activities,
- To create a food security information system that includes information about the geographical distribution of food security data, food production patterns and availability, access to food and income sources, regional food market price patterns, family income and expenditure that can be updated on a regular basis.
- To map the main food security indicators and to do the spatial food security analysis.

The consultancy outputs are:
1. Database: As web based data-entry, the Socio-economic database and Food Security Atlas will be accessed on-line and updated every 6-12 months.
2. SE-FS Atlas: Hard copy of Socio-economic and Food Security Atlas (SE-FSA) including maps and text analysis over a trend of years with a total number of 500 copies, each of 80 pages of maps illustrating food security indicators at governorate and local level whenever available.
3. CDs: Soft copy of Socio-economic and Food Security Atlas (SE-FSA) with a total number of 80 copies.

■ IEE for Roads Rehabilitation Project – Phase IV:

ARIJ was approached by CH2MHILL to prepare an Initial Environmental Examination (IEE) for the project entitled "Roads Rehabilitation Project – Phase IV", which is funded by USAID. The main objective of the IEE study was to assess the environmental impacts and to develop mitigation measures of the project activities during the design, construction and operation phases. Accordingly, An Initial Environmental Examination study was prepared by ARIJ project team and provided to the CH2MHILL. The IEE study included the following:
1. Description of the existing environmental situation
2. Environmental impact analysis
3. Mitigation measure and the impact management.

■ Other Services and Activities:

ARIJ is involved in a wide variety of applications, including natural resource sciences, urban development and analysis, automated mapping and facility management (AM/FM) systems, land information systems (LIS), agriculture and geopolitics.

ARIJ is executing another consultancy for the *Arab Thought Forum* and the Salzburg Seminar with funding from the EU to produce maps for the 1948 war in Palestine. The Geo-informatics Department is continuing to act as a service provider, constantly supplying the other projects at ARIJ with statistical data, maps and geographic records needed for their research and programs.

It is worth mentioning that a spatial GIS-based model was developed to assess the potential suitability of locations for urban growth in the Bethlehem Governorate. The analysis aims to aid the decision makers at both local and regional levels to avoid any negative side effects of unplanned development through the consideration of two distinct scenarios dealing with past, current, or future Political and Environmental constraints.

Moreover, the Geo-Informatics Department supported many other national organizations with related reports, data, and maps. The unit has also worked with the local communities to build their capacities and skills and to enhance their knowledge in the GIS. ARIJ has continued its contribution to the training of the "new generation" of Palestinian and Arab specialists in the area of GIS remote sensing and its application in natural resource management.
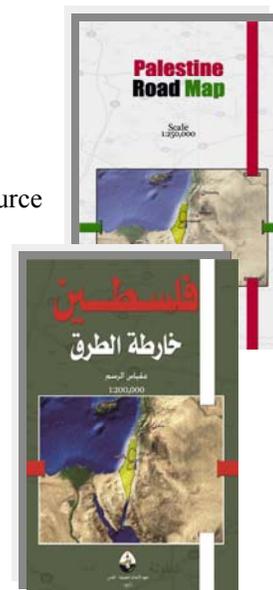
ARIJ provides services to other relevant organizations in the field of Biodiversity and food security. In the year 2008 most of the services were conducted to provide data concerning Palestinian biodiversity sector mainly about last updates of forested areas, vegetation cover, challenges and conservation programs in Palestine. Such service is mainly requested by local universities and students such as Bethlehem and Al Quds Universities. Additionally, ARIJ provided information to the Ministry of Agriculture about the impact of drought and climate change.

Furthermore, it is worth mentioning that a forum entitled *"Palestinian Development Forum"* was created by ARIJ to give the opportunity for the researchers to submit their studies and to open discussion about the developmental issues in the Palestinian context. This website includes several important documents and in the year 2009, ARIJ is planning to activate publicize this forum. The forum address is http://forum.arij.org.

CHAPTER III: NETWORKING AND PARTNERSHIP

ARIJ continued its cooperation with civil society institutions on local, regional, and international levels through conducting joint research activities, participating in workshops and other related activities within the sectors of agriculture, environment, natural resource management, etc.

■ **Cooperation with Palestinian Government and Bodies:**
Ministry of Agriculture (MoA), Ministry of Planning (MoP), Palestinian Environmental and Quality Authority (PEQA), Ministry of Education and Higher Education (MoE & HE), Ministry of Local Government (MoLG), Ministry of Culture, Ministry of Tourism, Palestinian Water Authority (PWA), Negotiation Affairs Department (NAD), Palestinian Central Bureau of Statistics (PCBS), Bethlehem Governorate, Municipalities and local councils.

■ **Cooperation with Palestinian Institutions and NGOs:**
National Coalition for the Global Call for Action against Poverty-Palestine, Palestinian Agricultural Engineers Association, Palestine Economic Policy Research Institute (MAS), Economic and Social Development Center of Palestine (ESDC), Palestinian Non-governmental Organization Network (PENGO), Center for Private Sector Development, New Farm Company, Bethlehem NGO Forum, Palestinian Association for the Development of Internet2 (Padi2), Agricultural Rural Development Initiative (ARDI), Land Research Center (LRC), Union of Working Agricultural Committee (UWAC), The popular Committee for Land Defence, The National Committee for the register of damages caused by the "WALL", Agro-Eco Company, local economic development board (LED), Center of Jerusalem Studies, Bethlehem University, Birziet University, Alquds University, Arab American University of Jenin (AAUJ).

■ **Cooperation with Regional and International Institutions, Bodies and NGOs:**
OCHA, UNEP, IDRC, UNDP, ICRC, UNRWA, Peace Now, CARE International, HABITAT International Coalition (HIC), Japan International Cooperation Agency (JICA), GTZ (Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH), DAAD, ACDI/VOCA, Spanish Cooperation, Action Against Hunger- Spain (ACF), Swiss Agency for Development and Cooperation (SDC), Arab Fund for Economic and Social Development, JumpStart International, TIRI (Making Integrity Work), Consolidated Appeal Program (CAP), Arab Center for Alternative Planning, United Nations High Commissioner for Refugees, European Geostationary Navigation Overlay Service (EGNOS), The Australian Agency for International Development (AusAID), E-wash Committee, Mennonite Central Committee (MCC), Canadian Food Grain Bank, World Food Program, Food and Agriculture Organization (FAO), Consolidated Appeal Program (CAP), International Center for Agricultural Research in Dry Areas (ICARDA), Master Program in International Cooperation and Development (MICAD), Swiss Federal Institute of Technology Zurich (ETHZ).

CHAPTER IV: DISSEMINATION OF INFORMATION

4.1 ARIJ in the Media

The overall growth of the ARIJ activities has sparked growth in ARIJ media. This growth is also likely to be spurred by the heightening of political activities in the OPT, with the public likely to become more reliant on the media for information pertaining to political happenings, other Information concerning research and community development projects being run in the OPT is considered to be important as well. Therefore, to meet high demand for ARIJ data and publications, ARIJ has increased the capacity of ARIJ's main server and installed a 4MB fiber-optic Internet service. This will accelerate the internal network and internet speed as well as assist in compiling more of ARIJ's publications and data on its website to be available to users everywhere.

4.2 Conferences and Workshops

The ARIJ team participated in various workshops and conferences related to its field of work such as water, agriculture, biodiversity, land use, and the monitoring Israeli settlement activities and planning. ARIJ has participated in 58 different workshops and conferences conducted abroad (10.4%) and locally (89.6%).

4.3 Meetings and Visits

The year 2007 witnessed many activities performed by ARIJ including visits of different delegations and key persons. The total number of hosted visits and meetings reached 210, of which 42.4% represent foreign and international organizations, and 57.6% local Palestinian bodies.

4.4 Presentations

As part of its publicity campaign in improving awareness of local, regional, and international parties, ARIJ organized several presentations highlighting the geopolitical situation, its impact on Palestinian natural resources, and its sustainability to different key visitors and delegations hosted by ARIJ. Consequently, 82 presentations were given by ARIJ, of which 76.8% were for foreigners and 23.2% for local Palestinian bodies.

4.5 ARIJ Website Visits

The ARIJ website noticed a significant increase in the overall number of visitors during 2008. The number of hits on the ARIJ website reached 8,840,000, with a daily average hits of 4,767 thousand. The total number of recorded hits has increased in 2008 compared with 2007 by 288,155 visits (8840000 - 8,551,845).

Figure 3: ARIJ homepage visits between the year 1999 and 2008.
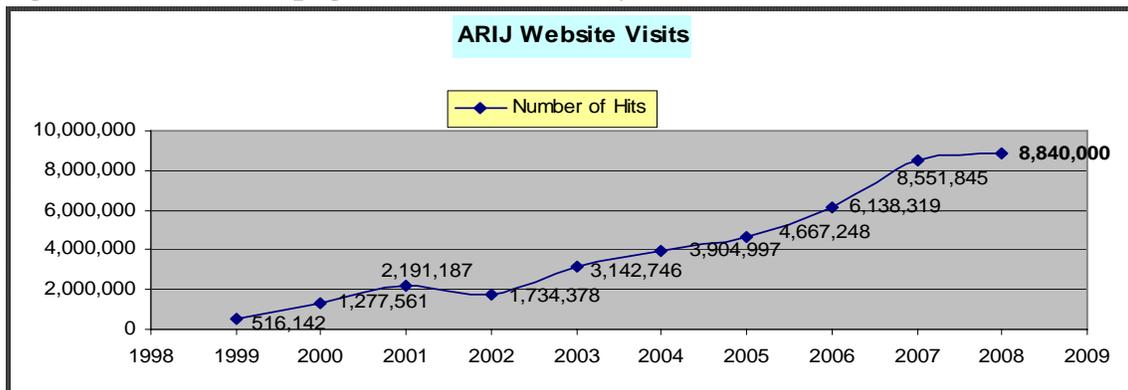
4.6 Publications of the Year 2008

During the year 2008, 13 papers, 1 book, 3 booklets and leaflets, 9 posters, 2 roadmaps, 30 special reports, 406 case studies, 42 newsletters and 1 ARIJ calendar for the years 2009, 2010 and 2011; were prepared, printed, or published (Either Electronically or Hard Copies), as follows:

4.6.1 Papers

1- A paper entailed: Spatial Data Infrastructure towards E-Municipality –The Case of Beit Sahour Municipality. Submitted to the 1st International Conference on "Urban Planning In Palestine". (One Paper)

2- "Geo-Demographical Outlook for Jerusalem." The First International Conference on Urban Planning in Palestine: Current Challenges & Future Prospects, Nablus–West Bank.

3- "Policy Tools Towards Sustainable Development Under a Transitional Political Context – The Case of Bethlehem Governorate, West Bank." Sharjah Urban Planning Symposium X: Capital Cities, Wicked Problems: Best Practices in Planning and Policy Response Mechanisms, United Arab of Emirates.

4- Israeli Settlements dramatically expand in the Occupied West Bank between the years 1996 & 2007

5- The Narrative of the Newly Proposed Master Plans to 14 Palestinian Communities in area "C" December 2008.

6- Israeli Colonization Activities in the Occupied Palestinian Territories after Annapolis

7- On the 41 Anniversary of the Israeli Occupation, 'Israel still persistent and relentless to sentence prospects of Peace to an end'

8- Israel's Restlessness to join Certified International Affiliation, Why Israel should NOT Join the EU & the NATO

9- 14مقطع يكون جدار العزل الإسرائيلي عزل 64 تجمع فلسطيني يقطنها أكثر من 107 ألف فلسطيني و يضم 107 مستوطنة إسرائيلية يقطنها قرابة ال 400 ألف مستوطن إسرائيلي

10- عام على قمة أنابوليس، معهد الأبحاث التطبيقية – القدس (أريج) يستعرض الانتهاكات الإسرائيلية في الأراضي الفلسطينية المحتل.

11- الوضع البيئي الراهن في محافظة سلفيت.

12- حرب إسرائيل الديموغرافية في مدينة القدس لتحويل صراع الحقوق إلى صراع وجود.

13- ما هو مصير الفقراء في ظل الأزمة المالية العالمية الراهنة.

4.6.2 Books

ARIJ, 2008, The Local sustainability action strategies (Local Agendas 21 book that includes Za'tara Village, Beit Jala City, Bethlehem City, Beit Sahour City, Al Khader Town, Ed Doha City and Battir Village) under Bethlehem 21 project, West Bank, Palestine.

4.6.3 Booklets and Leaflets

1- ARIJ, 2008, Wastewater Treatment Plant, instructions and information, West Bank, Palestine.

2- ARIJ, 2008, The Sustainable Agriculture Program Specialists, a practical guide for agriculture In Palestine, Seconded Edition, Palestine.

3- ARIJ and ACF-Spain, 2008, The Palestinian Agro-production Calendar and Marketing Potentials for the Local, Israeli and External Markets (Case Study for Tubas Governorate)" in English and Arabic, West Bank, Palestine.
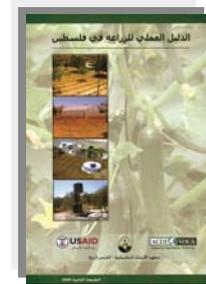
4.6.4 Posters and Road Maps

- Posters presenting the main findings of the Baseline Community profile under Bethlehem 21 project. *(Seven different Posters)*
- The Geo-political Status of the West Bank and Gaza. *(One Poster)*
- The Geo-political Status of Bethlehem. *(One Poster)*
- Palestine Road Map. *(One English Version)*.
- Palestine Road Map. *(One Arabic version)*

4.6.5 Special Reports

1- Assessment of the status of the Environment in Salfit Governorate (One Case study)
2- The status of the environment in Jerusalem Governorate (One Case Study)
3- Water crises in Bethlehem Governorate (One Case Study)
4- Roubina Ghattas, February 2008, Plant Biodiversity in the Palestinian Territory, published in This Week In Palestine. (One Case study)
5- Roubina Ghattas & Nader Hrimat, April 2008, Forested Areas in Hebron Governorate: Status and Challenges, published in This Week In Palestine. (One Case study)
6- Initial Environmental Examination. (One Report)
7- Domestic Water Vulnerability Mapping in the West Bank. (One Report)
8- Baseline Community Profiles: for Bethlehem, Beit Jala, Beit Sahour, Za'tara, Al Khader, Ed Doha, and Battir localities under Bethlehem 21 project (Seven different Profiles)
9- Urbanization Monitoring Department – ARIJ, 2008, Monthly Reports on Israeli Settlement Activities in the OPT, Volumes 114-125, West Bank, Palestine. (Published on POICA's Website)
10- Urbanization Monitoring Department – ARIJ, 2008, Quarterly Reports on Israeli Colonization activities in the Palestinian Territories, 1st, 2nd, 3rd and 4th quarter of 2008, West Bank, Palestine. (Published on POICA's Website)

4.6.6 Case Studies

In 2008, ARIJ conducted 406 case studies which were prepared by the Monitoring Urbanization Department, for more information about the case studies. Please visit our website http://www.poica.org/

4.6.7 Newspaper Articles

In 2008, ARIJ published 42 newspaper articles in different news publishers, such as Alquds and Alayyam newspaper, Arab Media Internet Network (AMIN), Palestinian News Network (PNN) and others. Please visit our website http://www.arij.org/

4.6.8 Calendar

ARIJ prepared and printed a 3 years Geo Political Calendar for the years 2009, 2010 and 2011, all in one calendar, and it contains maps of Palestine. (One Calendar)

CHAPTER V: ADMINISTRATION AND BUDGET

5.1 Human Resources Capacity and Development

The total number of employees during 2008 was between 60 and 67. In an effort to combat the high turnover of employees, the board of trustees decided to provide incentives for rewarding staff that excel in their performance.

ARIJ continues to focus on the development of its human resources as an essential component of institutional development. The high demand for ARIJ activities, the approved projects by donors and the high turnover in its staff, may cause interruptions in the smooth running of its activities and operations. This calls for the attention of ARIJ's trained professionals. Therefore, ARIJ continues developing its human resources capacities through offering and/or encouraging staff to apply for scholarships for professional development. Also many of ARIJ staff has attended training workshops in different fields to intensify their knowledge in their related field. Moreover, ARIJ has worked on attracting new employees for the purpose of growth, sustainability, and development.

ARIJ believes in the international exchange of culture and knowledge and has, therefore, developed an internal system to host international interns and volunteers as well as developing a volunteer/intern

manual to manage residency, finances, security, and assure satisfaction. This year, ARIJ hosted 9 volunteers and 4 interns, and 4 trainees coming either from universities or as a result of networking or partnership on specific projects or as individuals who seek to explore ARIJ and improve their standings in a specific field or research subject.

5.2 Contributing to Local Economic Development and Good Governance Practices

During the year 2008, the GTZ (Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH) created a local economic development board (LED) in Bethlehem Governorate. The created board consists of 13 member organizations representing the three sectors; governmental, private, and civil society organizations.

The issue of governance has become one of the major concerns in the management of public institutions. Civil society organizations need to install and follow good governance practices in order to fulfil their mission and achieve their objectives in helping the communities in which they operate. Therefore, ARIJ management has decided to be conscious of the concept of good governance, its dimensions and implications, in order to manage its daily operations in a responsible and efficient manner. Starting the year 2006, ARIJ undertook a serious institutional alteration, for the purpose of insuring transparency and accountability in using funds, managing employees, in addition to providing services for the community.

5.3 Assessment Reports

The year 2008 was a year of assessment for ARIJ, as four different assessments by external evaluators were carried out as follows:

a) *Institutional Impact:* an evaluation of ARIJ's project impact on the Palestinian community and stakeholders, regarding programs, general presentation, services, reports and publications during the period from January 2006 to April 2008, submitted and executed by a private team; Viktoria Waltz (Team Leader) and Rana Hirbawi (Research Assistant). The evaluation team considered ARIJ a highly distinguished and successful institute whose efforts and achievements are incomparable and successful in remaining a highly qualified institution serving the Palestinian people in a difficult transitory time, seeking for a sustainable future for country and society. The team highly appreciated ARIJ's publications, as well as ARIJ's projects and applied research interventions. According to the assessment report, ARIJ is not only an extraordinary local research institute that dedicates its work to the needs of the Palestinian people, but it also plays a major innovative and creative role in the society as a whole.

b) *Organizational Capacity:* an assessment of institutional capacity conducted by "Ernst & Young" covering areas such as organizational structure, body of governance, environmental factors, objective strategy goals, performance indicators, risk management, internal control system, staff performance, and information technology. As a result of this evaluation, it was recommended by "Ernst & Young" that ARIJ should implement a process to periodically review the achievement of the targeted performance indicators and identify variances between the targeted and actual results and take corrective actions accordingly. ARIJ should also translate its risk management procedures into a formal risk management function. This function should have the objective of reducing the different risks associated with defined threats to the level acceptable by ARIJ. The function should focus on those significant risks having a higher probability of occurrence and a greater impact. This can be achieved by first identifying risks, assessing their impact, creating a risk management plan, selecting the best practices to mitigate the negative impact, and finally establishing a monitoring mechanism to ensure proper implementation.

c) *Internal Control:* an appraisal of the control system and internal audit for the development and reinforcement of good governance by the Palestinian Authority, conducted by "State Audit and Administrative Control Bureau". According to this appraisal, ARIJ received a grade of 88% for the year 2008; which means that the level of credibility and accountability of the system is

"Excellent" according to the Bureau scale. Some of the major positive findings by this appraisal included the following:

- The existence of an independent internal control unit.
- The existence of annual periodical plans.
- The unit staff members are experienced in their field and they hold scientific qualifications which meet their work requirements.
- There is a sound organizational structure, underlining the duties and responsibilities of sections and personnel.
- There is a written procedural guide which organizes the financial and administrative affairs at the institute.
- There is a written audit system expressed in clear and straightforward instructions. There is also a clear accounts guide.

Nonetheless, the "State Audit and Administrative Control Bureau" recommended the empowerment of the monitoring and evaluation department by hiring more staff, in order to fully undertake internal audit and project tracking and reporting tasks.

d) *Ministry of Interior Audit:* an inspection conducted by an investigation team from the Ministry of Interior. No major findings were reported and the report stated that the institute runs advanced techniques and programs in managing its financial and internal affairs.

5.4 Infrastructure Development

One of the major sustainability challenges for ARIJ is insuring adequate building facilities to provide office space for its growing number of employees, and facilitate the performance of the institute different activities. Through expanding its resource mobilization efforts, ARIJ has received funds from the 'Arab Fund for Economic and Social Development in Kuwait' to carry out a building project. The project was implemented in 2008, during which two additional floors with a total area 642 square meters were added to the new ARIJ premises. Once furnished, the two floors will consist of 26 rooms including offices, meeting rooms, two laboratories, and a conference room. And as the Bethlehem area suffers from the lack of water especially during the summer, ARIJ management also decided to construct a cistern with a capacity of 100 cubic meters, to serve the needs of the Institute. During the year of 2009, ARIJ Board of Directors is committed to completing the internal finishing of the two floors through seeking additional funds from the friends of ARIJ.

5.5 Resource Mobilization Strategy

Under project funded by IDRC in cooperation with CDS, ARIJ completed project entitled "Capacity Building in Resource Mobilization (CB-RM)" which involved the formulation of a resource mobilization strategy to enable the institute to solicit and manage financial resources and donations, seeking and identifying potential funding sources. The purpose of the strategy is to help ARIJ broaden its donor base, making the financing of the institute more predictable than its traditional sources, in addition to improving the capabilities of ARIJ staff in the development and submission of projects for consideration by potential donors especially in the field of applied research.

All project activities were implemented in a participatory approach, involving the entire staff as well as members of the board through 3 day-workshops. The first workshop was mainly in-job training for around 50 staff members; it included an introduction of the main concepts of resources mobilization in addition to an open discussion about their practical implementations in ARIJ. The second

workshop was also for ARIJ staff members, but focussed on strategic planning on a departmental level. Accordingly, staff members were divided into six groups according to department. These working groups conducted a SWOT analysis for each of the ARIJ departments, discussing the objectives, activities and strategies for the department.

The final workshop was conducted for eight board members. The board members discussed and approved ARIJ's vision "Towards a Sustainable Palestine". The workshop mainly stressed the importance of public relations for ARIJ in general, and the role of the board members in promoting PR for the purpose of establishing new relations with donors, partners, and private sector companies. It was also agreed that the ARIJ web site needs to be reconstructed with a more professional layout, and including more information about projects undertaken by ARIJ.

Like the staff, the board members also contributed some income-generating ideas that, along with ARIJ strategic plan, would be used for formulating the 'ARIJ Resource Mobilization Strategy' for the next five years. The strategy includes a separate plan for each of the six ARIJ departments, going through the goals, specific objectives, strategies, activities, and expected results. Moreover, it introduced potential income generating projects in the fields of waste management, agriculture, services and facilities, publications, capacity building, in addition to other investment ideas.

According to the RM plan, ARIJ will continue with the implementation of its on-going projects and will further participate in new projects; especially those which will are accepted during the year 2009. ARIJ is also planning to continue its scientific research in the fields of natural resources and sustainable agriculture. Other responsibilities towards the local community that need to be accomplished during the year 2009 include capacity building and awareness campaigns, field work, presentations, workshops and meetings, in addition to the regular GIS services. ARIJ recognizes that only proper policies and management can achieve the challenges of balancing societal development and environmental preservation. Thus, ARIJ will continue its efforts to develop its research capabilities and programs to protect the fragile Palestinian environment that is subjected to tremendous stress due to the ongoing political conflict.

5.6 Pro-Poor Integrity Project

Funded by TIRI, this pro-poor integrity project is a 5-year long project which aims to strengthen the capacities of local civil society to gain sufficient and legitimate leverage on local state institutions to positively impact the achievement of the Millennium Development Goals (MDGs) within their communities. The project will generate empirical evidence linking local governance changes with local development outcomes - in the four areas of health, education, water and sanitation and social protection - and MDG outcomes. The resulting database will enable policy makers to test the impact of improved governance on local MDG results.

The project shall work directly with local civil societies to improve the accountability of key local state institutions in the mentioned areas and help these local state institutions become more responsive to community needs in the target districts. As a result, the organizational capability of key local state institutions to formulate and implement pro-integrity and pro-poor policies will improve, and their organizational capability to research, monitor, train others and advocate for pro-poor policies is also expected to increase. Moreover, new policies and practices by key decision-makers and stakeholders will improve service delivery in the areas of health, education, water and sanitation and social protection as a consequence of dialogue with local civil society which will be adapted.

5.7 ARIJ Budget for the Year 2008

ARIJ enjoys multidisciplinary funding in addition to the Core Funding (SDC 10%) from the Swiss Agency for Development and Cooperation. The following figures and table describes ARIJ actual expenses for the year 2008 where the main donor is the USAID (24%) followed by Spanish Cooperation (SC) (24%), MCC (13%), EU (12%), and Arab Fund (4%), in addition to the other generated income from the executed consultancies and services by ARIJ (13%).

Figure 4: ARIJ budget by donors for the year 2008
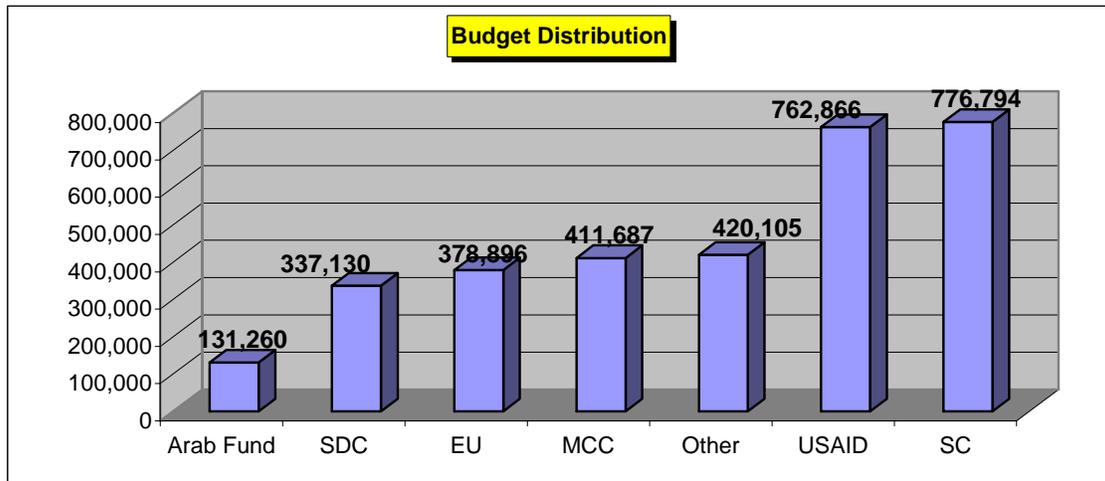
Figure 5: Allocation of budget per item for the Year 2008
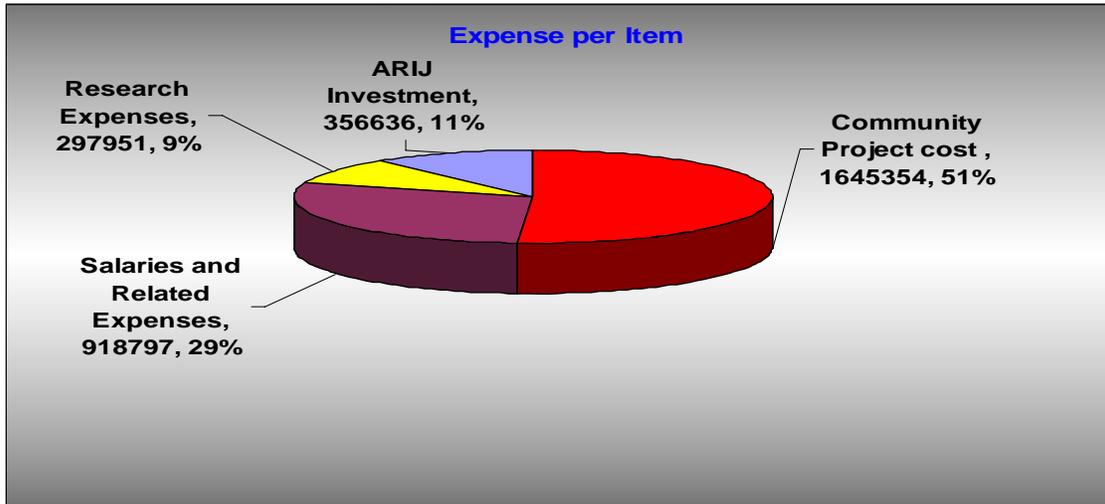
CHAPTER VI: ARIJ PLAN FOR THE YEAR 2009

ARIJ is keen to continue the implementation of its on-going projects and to further implement new projects, especially those that will be accepted during the year 2009. ARIJ is also planning to continue its scientific research in the fields of natural resources and sustainable agriculture and IT applications.

6.1 Proposed Activities for the Natural Resource Management Program

1. Establishing a Palestinian Center for Environmental Technology and Education (CETE)
2. A proposed compost production facility to serve eight localities In the Hebron District
3. Continue monitoring the Israeli settlements expansion activities
4. Conduct environmental impact assessment (EIA) for relevant suggested projects.
5. Conduct a pilot project to assess the implications of the segregation wall in four Palestinian communities in cooperation with the HIC.
6. Development of settlements elimination manual.
7. Establish a national record concerning the implications of segregation wall in cooperation with Bookmarking Social committee.

8. Follow up the Wastewater Treatment Plant project in Nahhalin village and the implementation of relevant projects in other areas in the PT.
9. Follow up the production of compost on medium and large scales.
10. Implement wastewater treatment projects on household level and its extension.
11. Follow up the urban growth in the PT areas and institutionalized the available urban data available at ARIJ.
12. Initiate online environmental magazine (half yearly) and environmental calendar
13. Initiate a program about desertification and Human dimension of environmental change in the OPT.
14. Localize and implement Local Agenda 21 in Hebron and other Governorates
15. Prepare indoor environment of Palestinian schools and its effects on the comfort and performance of children.
16. Prepare the Jordan Valley Information System.
17. Publish the book series for Environmental Education.
18. Publish a Geo political Atlas for the Palestinian Territory.
19. Printing the Geo Political poster for west Bank and Gaza.
20. Launch Interactive map for the West Bank and Gaza at ARIJ website.
21. Bani Na'im 21 "Environmental Sustainability for a Better Life: An Integrated Approach for Localizing Agenda 21.

6.2 Proposed Activities for the Sustainable Agriculture Program

- **Biodiversity and food security:**
  1. Develop an interactive "Socio-Economic and Food Security Atlas of OPT "using GIS-RS technologies.
  2. Develop on-line Food Security Information System.
  3. Develop a comprehensive box where relevant demography, socio-economic, biodiversity and food security information are archived and organized.
  4. Continue the implementation of food security information system project.
  5. Provide training on food processing and food hygiene.
  6. Continue searching the biodiversity of Palestine with certain focus on Flora, human practices and ecosystems. Develop a Palestinian Flora calendar and photo system.
  7. Expand the herbarium works to include new plant species and new coverage areas.
  8. Expand forestry study covering new Palestinian forested areas.
  9. Dissemination of information and research results through publishing research papers in refereed Journals.
  10. Support the development of agro-tourism and eco-tourism profitable projects.
  11. Continue providing consultancy services through field surveys and analytic studies to study the food security and biodiversity sectors.
  12. Implement capacity building programs on both the individual and institutional levels in the fields of biodiversity, and food security.

- **Socioeconomic:**
  1. Continue working on the village profile projects for Hebron and Bethlehem.
  2. Doing baseline surveys for the joint agro-marketing project with ACF-Spain and ACAD and socio-economic survey for the developmental agro-projects.
  3. Activating the Palestinian Development Forum through publishing new articles and advertising the site locally and regionally.
  4. Developing concept project proposals such as: developing human security Atlas and Redistricting of Jerusalem.
  5. Developing an integrated website for village profiles of Palestinian localities.
  6. Conducting studies on the impact of geo-political status on demographic changes.

- **Developmental agricultural activities:**
    1. Continue the implementation of agricultural developmental activities which are presented in ACDI/VOCA and Food Security Information System (Emergency V).
    2. Provide beneficiaries with technical and extension services, and building their capacities in agro-production systems and good practices such as composting the organic waste.
    3. Conduct studies about the impact of drought and limited water resources on the agricultural sector.
    4. Conduct experiments on crop water relationship for scheduling irrigated water and the impact of compost of soil moisture holding capacities.
    5. Continue seed breeding program of field crops and dry land vegetables.
    6. Publishing several extension manuals in composing, poultry and small ruminants' farm management and plant production guide in Palestine.

- **Agro-marketing activities:**
    1. Survive agro-marketing pricing system based on seasonality, geographic area and demand supply balance.
    2. Publishing agro-marketing baseline study about the Jordan Valley.
    3. Conduct survey on the Palestinian agricultural crops those are enjoying A Palestinian Geographic Identity and try to register them.
    4. Build the agro-marketing capacities of Farmers in Tubas and Jordan Valley area.
    5. Develop manuals about fare trade, organic agriculture, required standards to meet the international agro-exportation system.
    6. Start developing the first permanent agro-rural market in Bethlehem.

6.3 Proposed Activities for the Information Technology Program

1. Continue implementing, troubleshooting, analyzing, and maintaining Network administration, Unix and Windows server administration.
2. Continue Upgrading and developing of ARIJ E-Office application.
3. Restructure and upgrade ARIJ website and integrate more languages into the site.
4. Design and develop a data driven website for the village profile project implement by the Sustainable Agriculture Program.
5. Develop a web based application for the Palestinian Environmental Information System (PEIS), in which the IT staff will be using open source geo-spatial solutions to accomplish the task. The decision of converting the system from a desktop application to a web application was made to offer the public the ability to use the system.
6. Further development on the consultancy for a German based driving school in which IT unit developed an online written driving exam system that will be used by students to study and train for the official exam. Currently the IT program will be updating the system to include different languages.
7. Continued to be a member of the MEDaCoN through METIS (MEdiTerranean Introduction of GNSS Services) project
8. Develop and improve more effective and practical archive system.
9. Develop a web based interactive atlas of Jerusalem.
10. Construct a website in which a search engine for the atlas indicator that will be accomplished with the ability to view all maps used in the atlas on the site using Scalable Vector Graphics SVG.
11. Convert all ARIJ web mapping solutions to open source Map guide.
12. Seek to get an ISO 2002 (ISO 9002) certificate.

6.4 ARIJ Potential Projects

Several project proposals were prepared during the year 2008. Some of these projects were developed and submitted, and others are still in the process of development, either by ARIJ staff only or jointly with other local and/or regional and/or international organizations. Following are the potential proposals:

- Indoor Environment of Palestinian Schools and its Effects on the Comfort and Performance of Children. IDRC
- Educational about and for Sustainable Development in schools. CHF
- Establishing a Composting Facility in the Hebron Governorate. KFW
- Localizing and implementing Local Agenda 21 in Hebron or other Governorates CHF, European Commission (cross border cooperation)
- Developing a hand book and manuals on localizing agenda 21 and establishing a monitoring and evaluation process on the progress made by local authorities towards implementing the projects and actions imposed by their Local Agendas 21. CHF, Heinrich Böll, European Commission
- Educational about and for Sustainable Development in schools. Heinrich Böll, Ministry of Education and Higher Education, Welfare association
- Investigating Trans-boundary Aquifer Systems European. Commission (cross border cooperation)
- The Palestinian Environmental Village Profile: Mapping the Social and Physical Infrastructure. Spanish cooperation, ICRC
- Survey Medical and Industrial Waste Generation within the Bethlehem and Hebron Governorates of the West Bank. Ministry of Education and Higher Education (French Palestinian project)
- Forecasting Impacts of Climate Change and Variability on Water Supplies and Utilization (Local Impacts and Threats from Climate Change) UNDP, European Commission (cross border cooperation)
- Desertification and Human dimension of environmental change in the OPT. UNDP, European Commission (cross border cooperation)
- Inland Air-Quality Impacts from Urbanization. EU
- Assessing environmental impact assessment of quarries and stone cutting facilities in the southern part of the West Bank. Welfare Association
- Rehabilitation of the Romanian wells in the Eastern Slopes. ECHO, Care, Spanish cooperation
- Rehabilitation of the existing springs (focus in developing ARIJ lab). ECHO, Care, Spanish cooperation
- Adopting environmentally sound management options of wastewater in rural communities by introducing decentralized wastewater management systems, (small and medium scale wastewater treatment plants). MCC and French in partnership with PREMIÈRE URGENCE
- Adopting environmentally sound solid waste minimization techniques at source (separating and composting at source using household garden composters). JICA, Italian Cooperation
- Inaugurating a Local Urban Observatory to monitor and orient the urban expansion. Arab Towas Org, Kuwait Arab Fund, UN Habitat
- Develop A GIS based information system for WSSA. Ausaid
- Conduct environmental consulting services (Environmental Impact assessment, training).
- Establishing a GIS based information system of the targeted village (Jalame).
- Improving livelihood and agricultural activities of poor rural families in the southern part of the West Bank- CAP 2009.
- Climate Change Awareness Campaign in the OPT. German Foundation 'Heinrich Böll'
- Improve food security of poor households in marginalized areas.
- Address a number of key underlying causes of vulnerability of Palestinian farming households in the West Bank governorates of Jenin and Tubas. Ausaid

- Improving Rural Marketing System in Palestine (RMS).
- Farm Advisory Tools and other Irrigation water saving solutions in Mediterranean Agriculture. 7th EU-FP
- Land Registration of Damages due to the construction of the Segregation Wall in the West Bank area – Habitat International Coalition.
- Livelihoods, Income and Food Security Improvement in the Bethlehem and Hebron Governorates (LIFS) - PAZ Y COOPERACION/ Spain.
- Master planning the site area of the proposed Palestinian Center for Environmental Technology and Education- Osh Gorab, Beit Sahour.
- The creation of a regionally traditional Canaanite Farm/Horticultural Center in order to create local employment as well as to serve as a touristic, cultural, and educational center for the local community and tourists/visitors.
- Rehabilitation of agricultural springs for vulnerable farming families in western Bethlehem Governorate.
- The Palestinian Environmental Village Profile: Mapping the Social and Physical Infrastructure of five localities in Ramallah and Al- Bireh Governorate.
- Restoration of agriculture, water and sanitation conditions in southern Hebron Governorate.
- Support vulnerable farmers to mitigate the impact of the 2008 adverse climatic conditions (frost, drought and winds) and limited access and movement due to the separation barrier in the northern West Bank.
- Supporting vulnerable livelihoods in rural areas of the OPT.
- Improve and sustain household food security of poor female headed families.
- Develop an interactive "Atlas of Palestine" and a cars tracking system using GPS and GPRS technologies.
- Prepare tourist maps for Bethlehem Area in cooperation with Ministry of Tourism and Antiquities.
- Interactive Atlas for Jerusalem.
- Interactive Atlas for Palestine 1948.
- TATWEER project in partnership with Care International and the ESDC with AusAid fund.