



MILLENNIUM
CHALLENGE ACCOUNT - JORDAN
Partners in Development

Water Smart Homes- Infrastructure Works

PART 2 WORKS REQUIRMENTS

Tel : +962 6 593 6339

Fax : +962 6 593 6332

P.O. Box 143705, Amman 11814 Jordan • www.mca-jordan.gov.jo



MILLENNIUM
CHALLENGE ACCOUNT - JORDAN
Partners in Development

Types of Repairs & Replacements



MILLENNIUM
CHALLENGE ACCOUNT - JORDAN
Partners in Development

WSHs- Infrastructure Works

Types of Repairs & Replacements

- 1. Water Storage Tanks**
- 2. Water Piping**
- 3. Sanitary Fixtures**
- 4. Drainage and Sewage Systems.**

Water Storage Tanks

- **Types** : **Water Plastic Tank**
- **Location** : **Roof Tank or Ground Tank**
- **Capacity** : **2000 L or 1000 L Water Storage Tank**
500 L or 250 L In-House Water Storage Facility.

Water Roof Tanks



MILLENNIUM
CHALLENGE ACCOUNT - JORDAN
Partners in Development



Water Ground Tanks



Water Piping

Type : Galvanized Steel Pipes

Size & Location :

- **Exterior (3/4")** connections between water meter and storage tank, from storage tank to the house.
- **Interior (1/2")** in-house water network.

- **All the connections shall be EXPOSED and include all necessary fittings to complete the work.**

Exterior Water Piping



MILLENNIUM
CHALLENGE ACCOUNT - JORDAN
Partners in Development





MILLENNIUM
CHALLENGE ACCOUNT - JORDAN
Partners in Development

Interior Water Piping



Sanitary Fixtures

- **Hand Basin**
- **Flush Toilet**
- **Turkish Toilet**
- **Shower Tray**
- **Kitchen Sink**

Accessories : Angle valves, Water hose Pipe, Water Drainage Pipe, Flushing Device, Taps and Mixers,



MILLENNIUM
CHALLENGE ACCOUNT - JORDAN
Partners in Development

Hand Basin



Turkish Toilet



MILLENNIUM
CHALLENGE ACCOUNT - JORDAN
Partners in Development



Water Drainage Pipe



MILLENNIUM
CHALLENGE ACCOUNT - JORDAN
Partners in Development





MILLENNIUM
CHALLENGE ACCOUNT - JORDAN
Partners in Development

Water Taps & Mixers



Drainage and Sewage Systems

- **Replacing UPVC Pipes , 56mm (2") and 110mm (4")**
- **Connection to the WAJ Swage Network**
- **Emptying the Septic Tank**

Replacing UPVC Pipes



MILLENNIUM
CHALLENGE ACCOUNT - JORDAN
Partners in Development





MILLENNIUM
CHALLENGE ACCOUNT - JORDAN
Partners in Development

Geographical Distribution of the Repairs

Water Smart Homes- Infrastructure Works



MILLENNIUM
CHALLENGE ACCOUNT - JORDAN
Partners in Development

Russeifeh

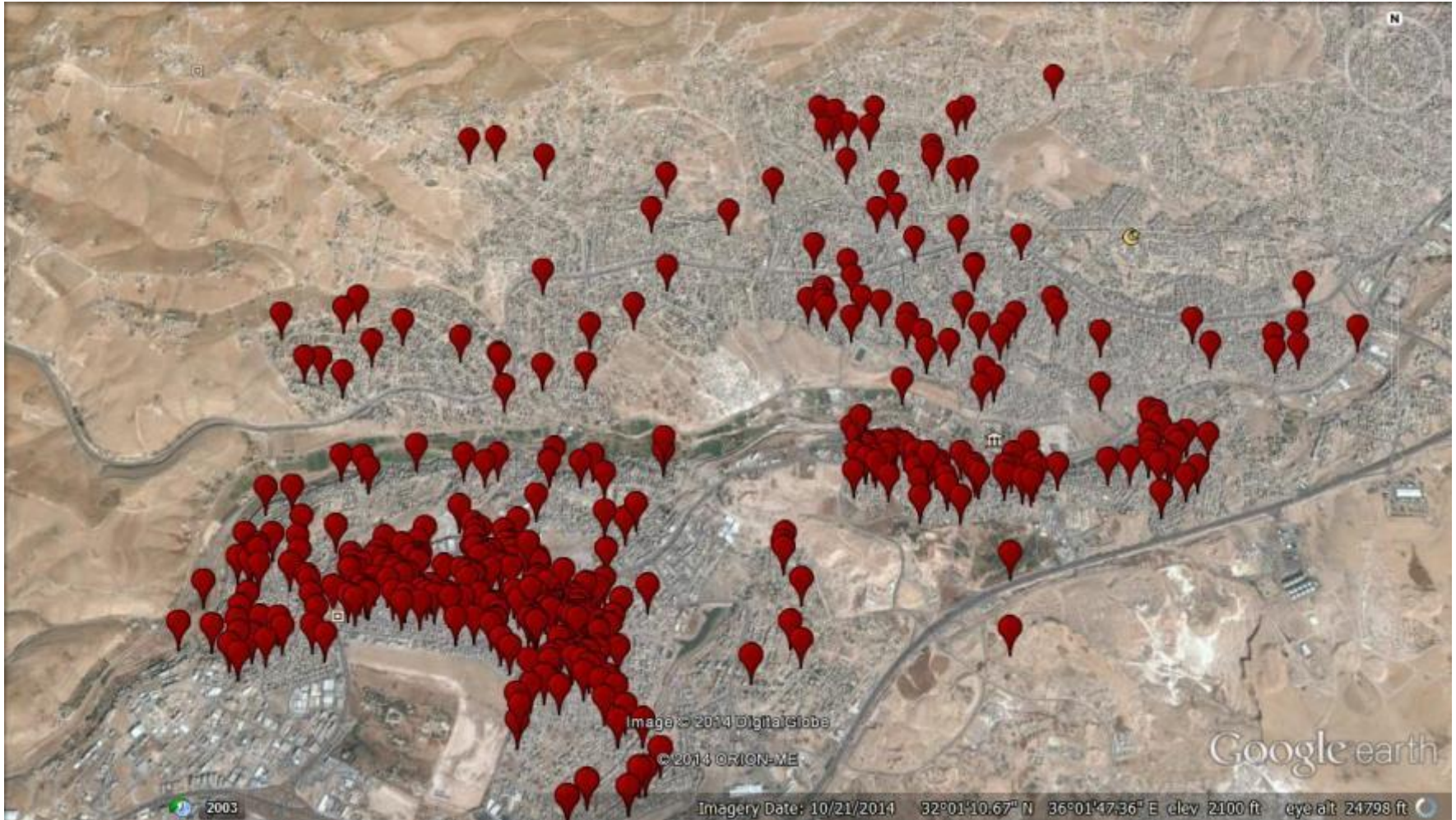
In-house repairs in the city of Russeifeh distributed as follow:

Area	No. of Dwellings
Hittin Camp	506
Meshershah	310
Russeifeh	487
Total	1,303

Water Smart Homes- Infrastructure Works: Russeifeh



MILLENNIUM
CHALLENGE ACCOUNT - JORDAN
Partners in Development



Water Smart Homes- Infrastructure Works



MILLENNIUM
CHALLENGE ACCOUNT - JORDAN
Partners in Development

Russeifeh & Zarqa

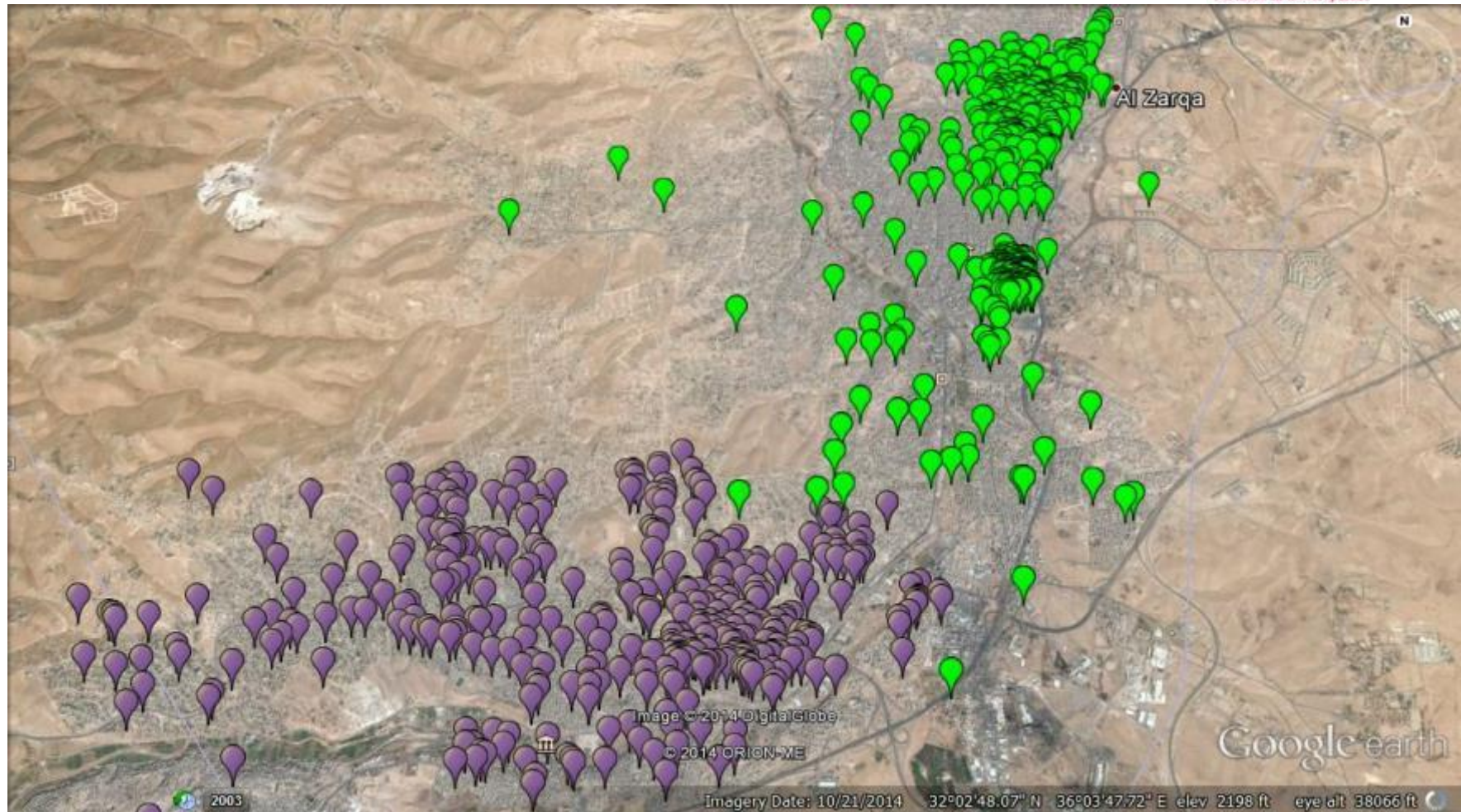
In-house repairs in the cities of Russeifeh & Zarqa distributed as follow:

Area	No. of Dwellings
Russaifa	881
Awajan	231
Prince Talal	504
Russaifa	146
Zarqa	390
The middle	236
Zarqa camp	154
Total	1,271

Water Smart Homes- Infrastructure Works: Russeifeh & Zarqa



MILLENNIUM
CHALLENGE ACCOUNT - JORDAN
Partners in Development



Water Smart Homes- Infrastructure Works:

Zarqa

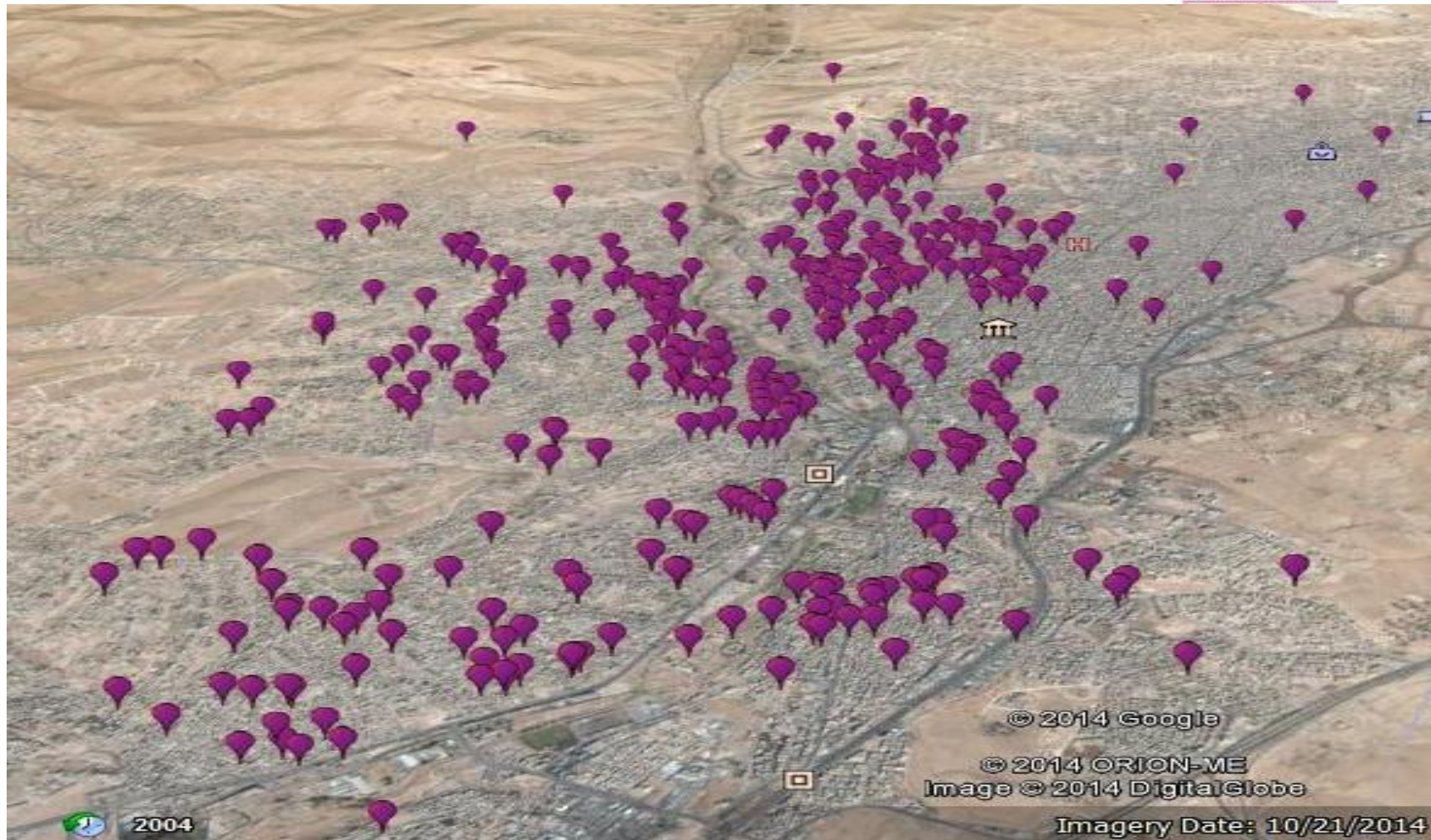
In-house repairs in the city of Zarqa distributed as follow:

Area	No. of Dwellings
Hussein Neighborhood	430
Janaah	85
White mountain	713
Total	1,228

Water Smart Homes- Infrastructure Works: Zarqa



MILLENNIUM
CHALLENGE ACCOUNT - JORDAN



Water Smart Homes- Infrastructure Works: Zarqa & other five localities



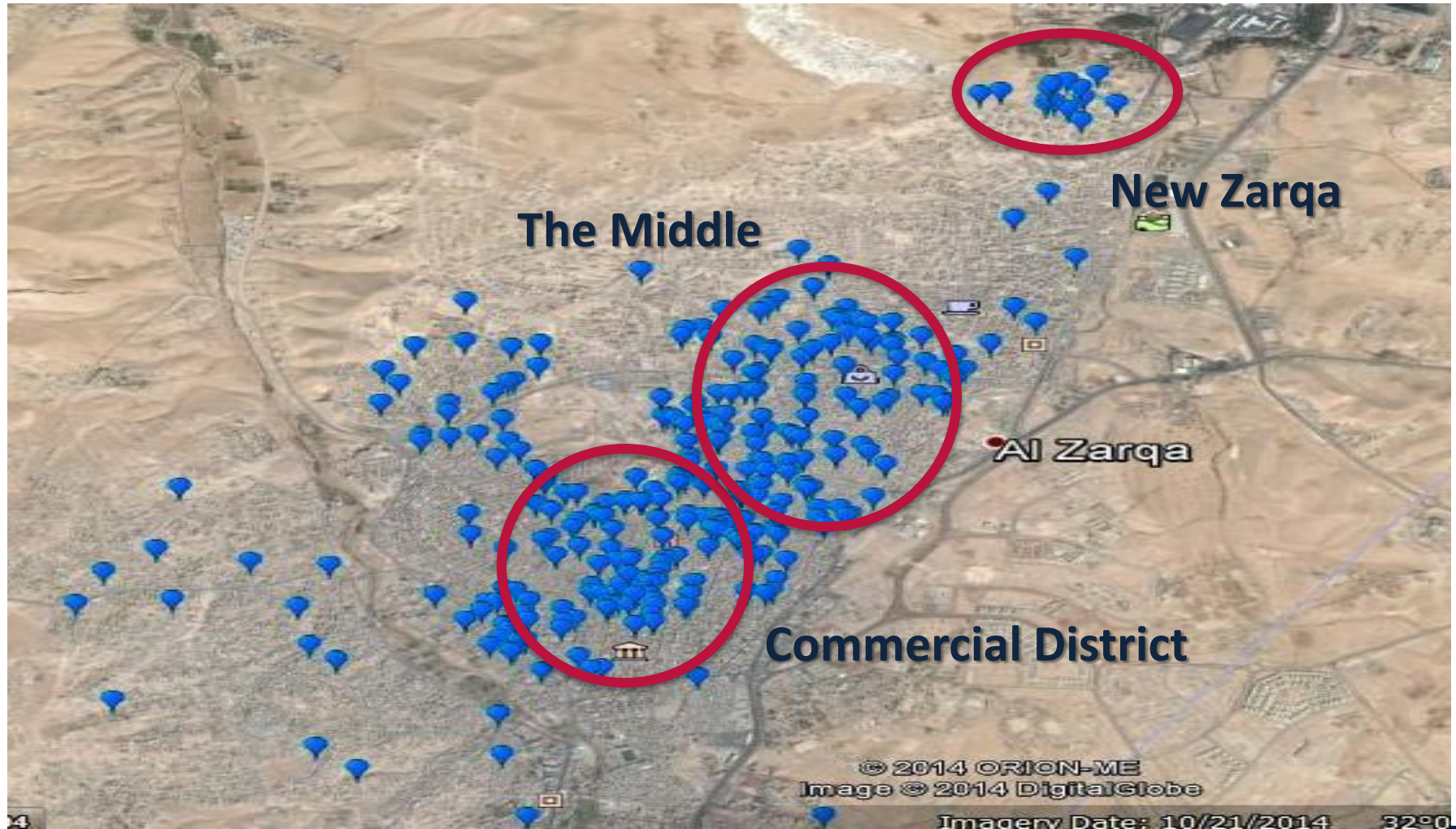
***In-house repairs* in the city of Zarqa (Commercial District, New Zarqa and The Middle) and in the towns of : Dulayl, Hashemeyeh, Azraq, Sokhna and Perrin, with the following distribution:**

Water Smart Homes- Infrastructure Works: Zarqa & other five localities



Area	No .of Dwellings
The city of Zarqa	449
The town of Perrin	232
The town of Dulayl	194
The town of Sokhna	181
The town of Hashemeyeh	155
The town of Azraq	105
Total	1,316

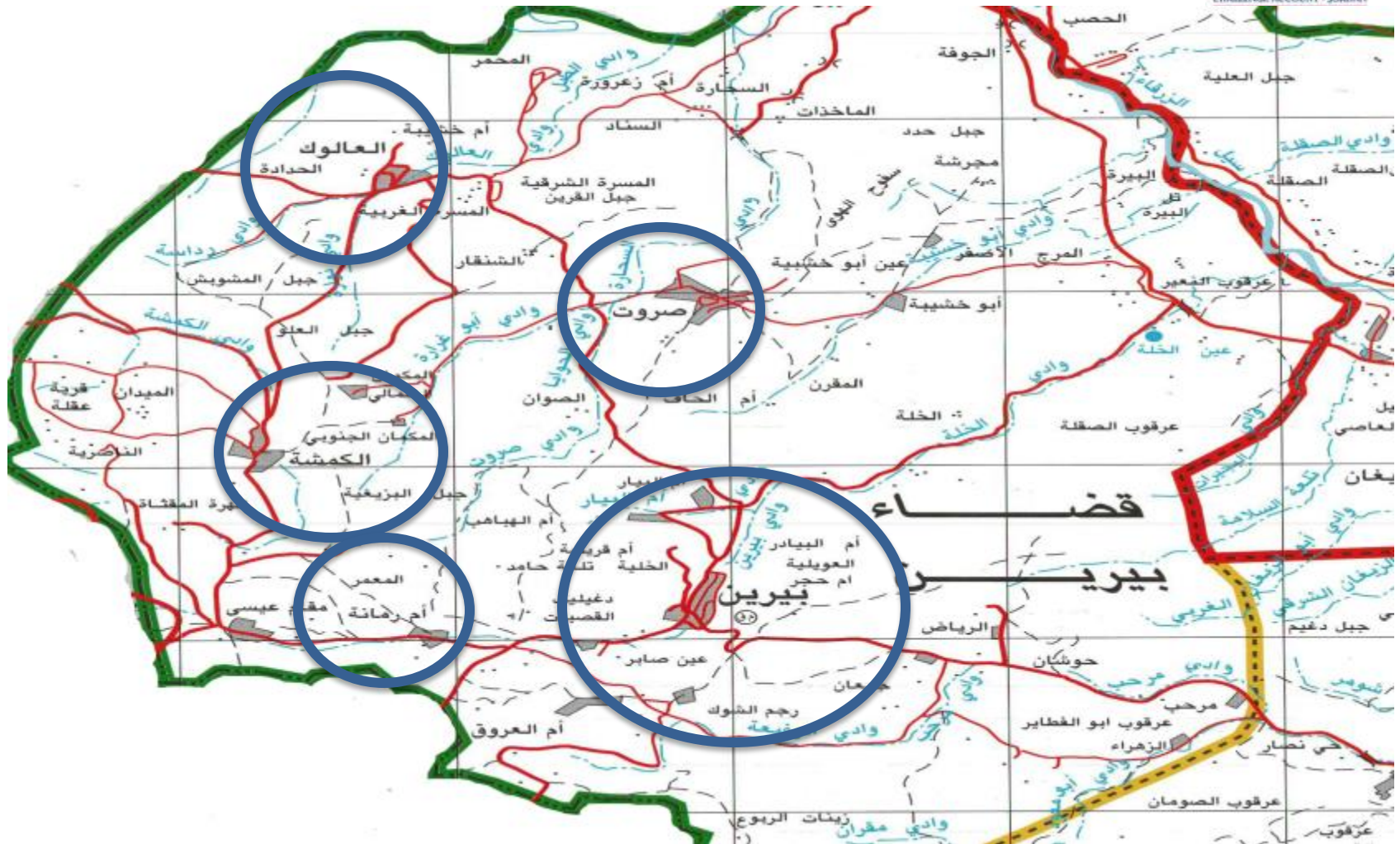
Water Smart Homes- Infrastructure Works: Zarqa & other five localities



Water Smart Homes- Infrastructure Works: Zarqa & other five localities



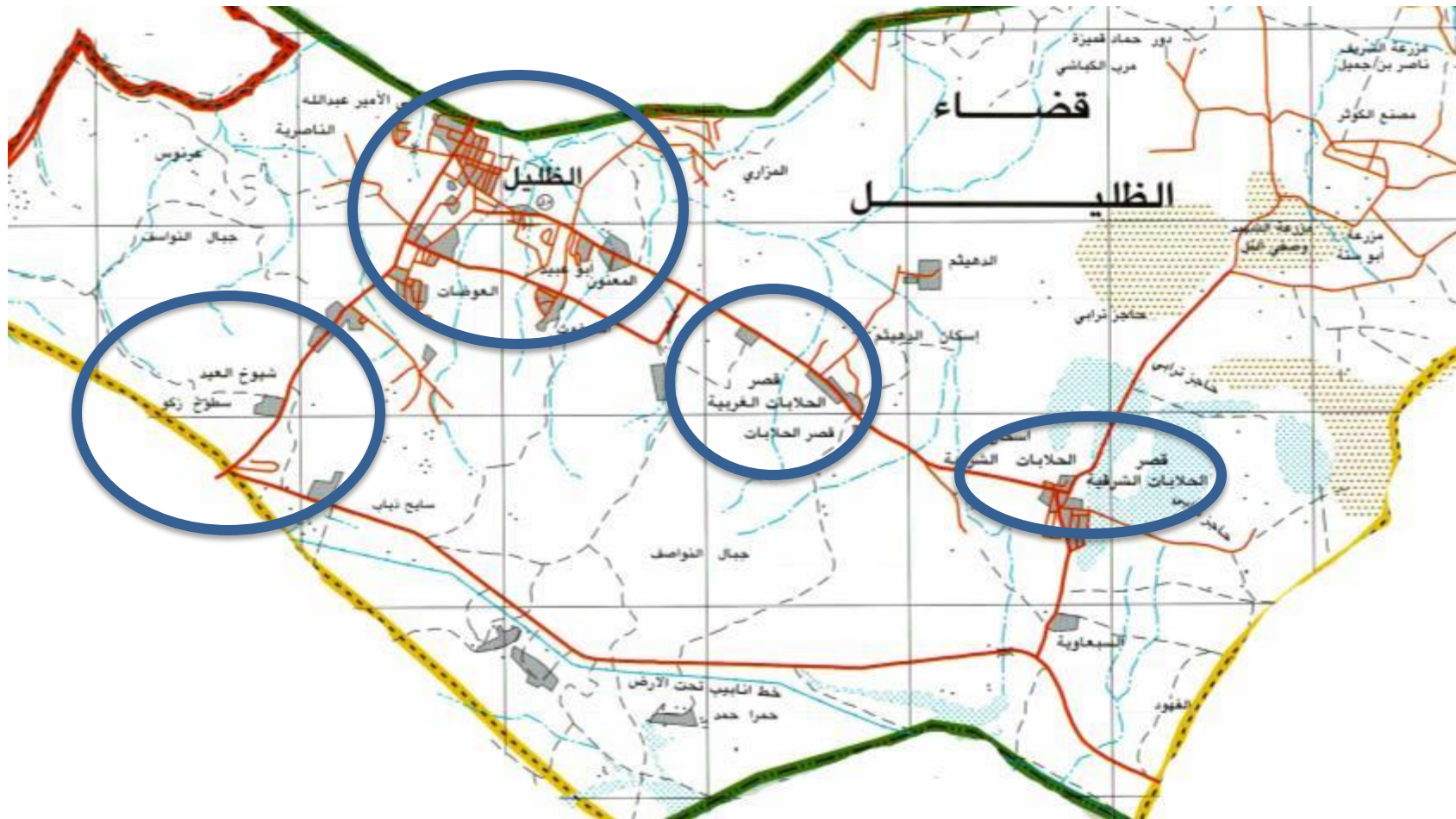
MILLENNIUM
CHALLENGE ACCOUNT - JORDAN



Water Smart Homes- Infrastructure Works: Zarqa & other five localities



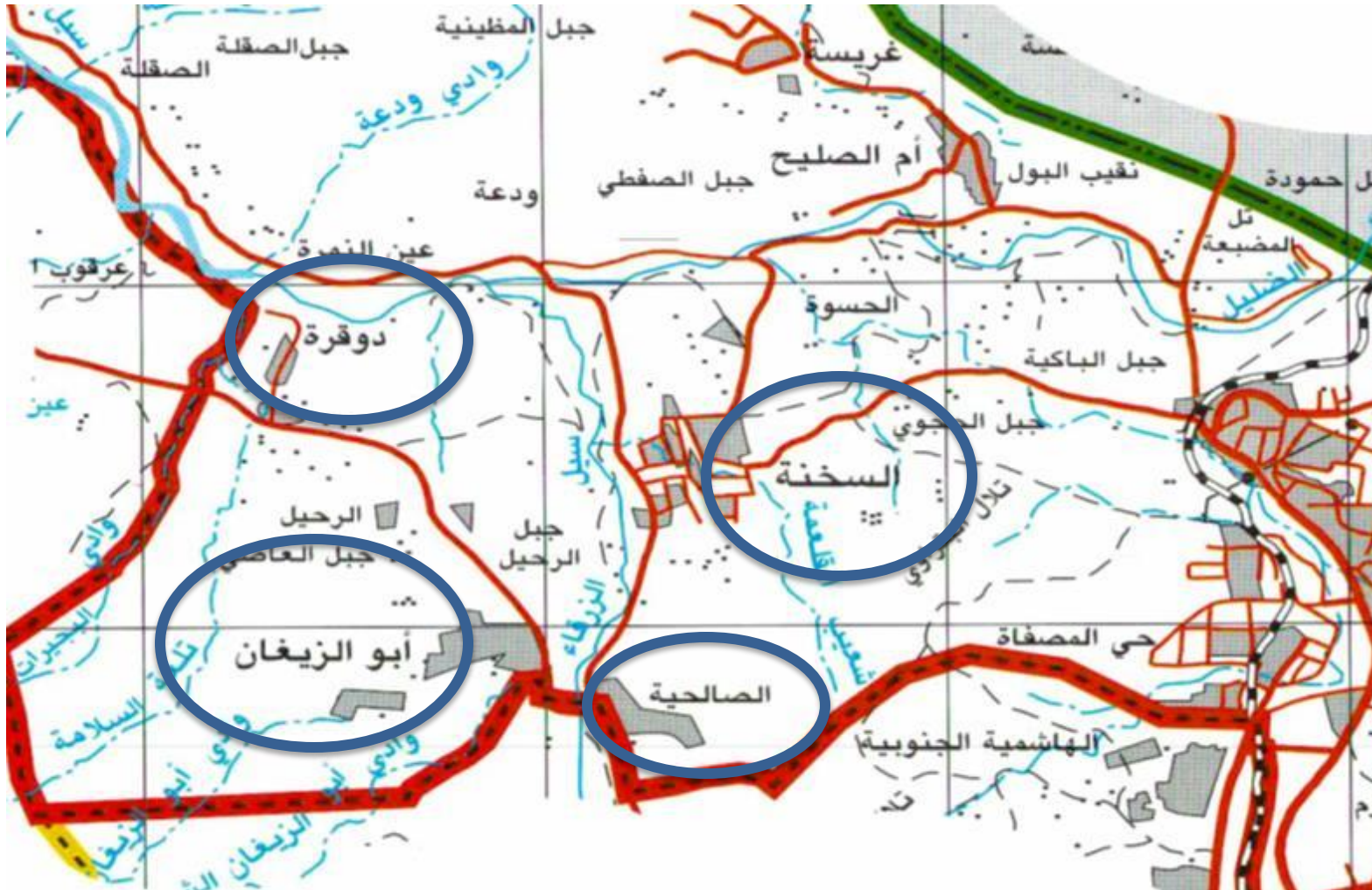
MILLENNIUM
CHALLENGE ACCOUNT - JORDAN
Partners in Development



Water Smart Homes- Infrastructure Works: Zarqa & other five localities



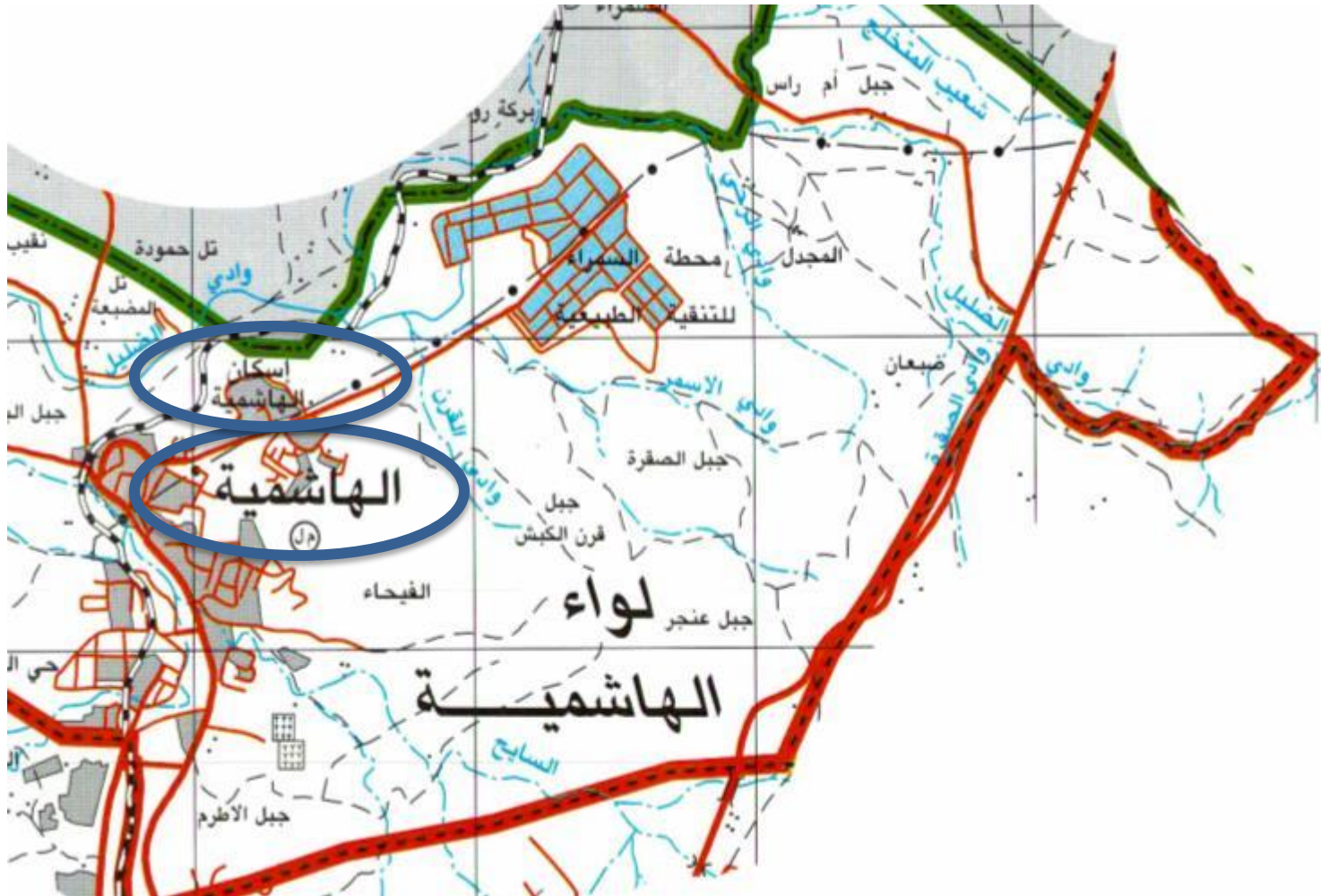
MILLENNIUM
CHALLENGE ACCOUNT - JORDAN
Partners in Development



Water Smart Homes- Infrastructure Works: Zarqa & other five localities



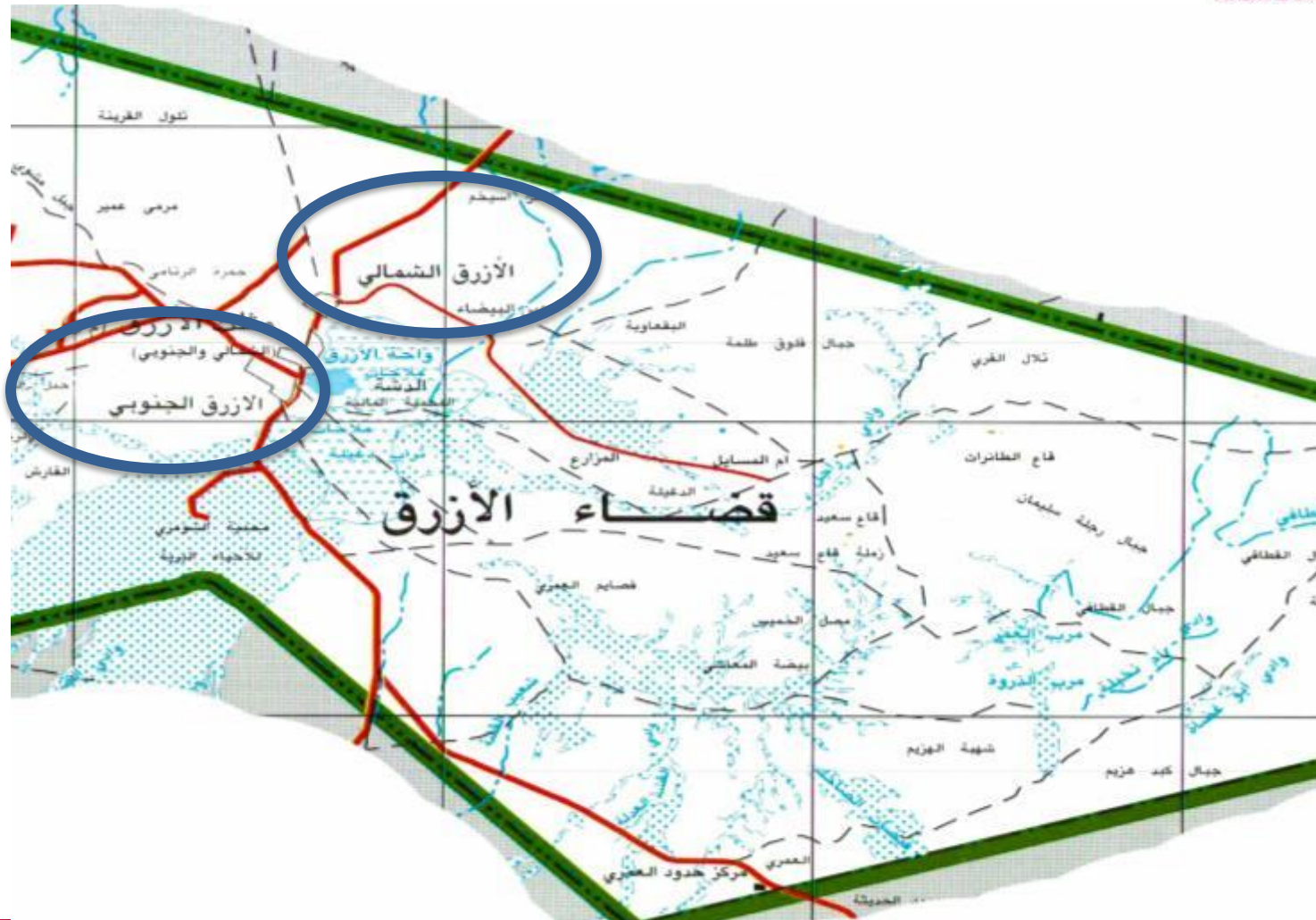
MILLENNIUM
CHALLENGE ACCOUNT - JORDAN
Partners in Development



Water Smart Homes- Infrastructure Works: Zarqa & other five localities



MILLENNIUM
CHALLENGE ACCOUNT - JORDAN
Partners in Development





MILLENNIUM
CHALLENGE ACCOUNT - JORDAN
Partners in Development

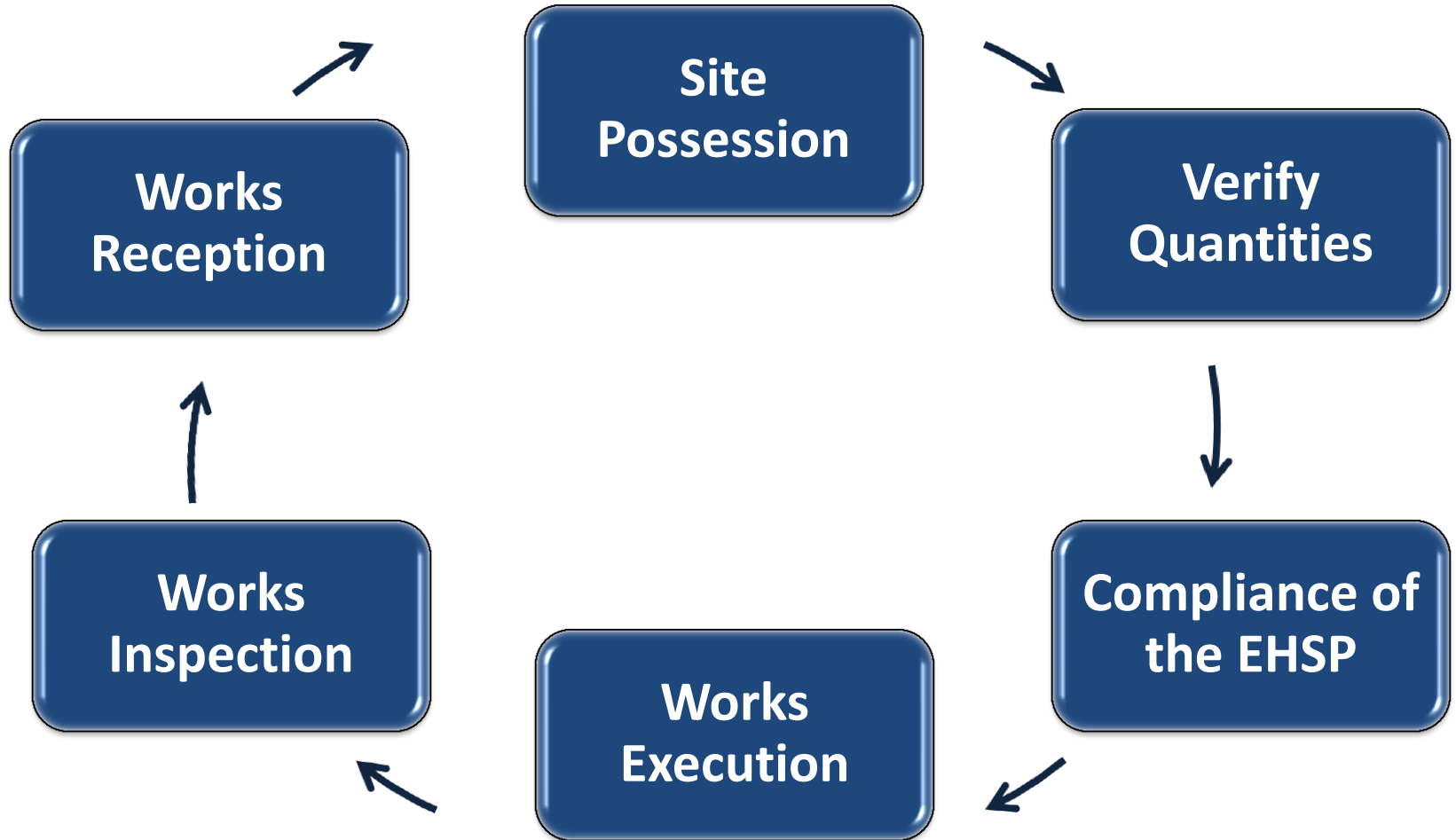
Work Cycle



MILLENNIUM
CHALLENGE ACCOUNT - JORDAN
Partners in Development

Water Smart Homes- Infrastructure Works

Work Cycle



Field Organization Of The Contractor

Water Smart Homes- Infrastructure Works



MILLENNIUM
CHALLENGE ACCOUNT - JORDAN
Partners in Development

Field Organization Of The Contractor

- **Site Engineer (1)**
- **Assistant Engineer (2)**
- **Forman (1)**
- **Women Facilitators Coordinator (1)**
- **Woman Facilitator (8)**
- **Plumbers (8)**
- **Assistant Plumber as needed**
- **Non Skilled labor as needed**

- **In general, minimum (8) working teams are required to execute the works within 12 months period.**

Water Smart Homes- Infrastructure Works



MILLENNIUM
CHALLENGE ACCOUNT - JORDAN
Partners in Development

Field Organization Of The Contractor

➤ Why the contractor should employ the Woman Facilitators ???

Due to the nature of the works, local culture and practices, the contractor shall incorporate in each work team a local woman as a facilitator and one woman as overall facilitator coordinator.



Field Organization Of The Contractor

➤ Roles & Responsibilities of the Women Facilitators

- **Contacting the NAF beneficiaries to coordinate the initiation of the repairs**
- **Coordinating the needs that the NAF beneficiaries would require during the execution of the works**
- **Training the NAF beneficiaries and their neighbors on in-house water management and basic plumbing**
- **Conflict resolution**



Field Organization Of The Contractor

➤ Roles & Responsibilities of the Women Facilitators Coordinators

- Following up the performance of Women Facilitators
- Replacing any Woman Facilitators in case of absence.
- Coordinating and reporting to the field office.
- Conflict resolution

Water Smart Homes- Infrastructure Works



MILLENNIUM
CHALLENGE ACCOUNT - JORDAN
Partners in Development

Contractor Staff Training

The Contractor Staff will receive THREE different trainings from the Consultants:

- 1- One day training for plumbers, assistant plumbers and non-skilled workers on the procedures to execute the works under the WSHs-INF contract. In addition to EHS Plan.**

- 2- Women Facilitators and W.F. coordinator will receive the following training:**
 - **House water management (quality & quantity)**
 - **Basic plumbing maintenance**
 - **Interpersonal communication**
 - **Conflict resolution**
 - **Gender equity approaches**



Contractor Staff Training

- 3- The Resident Engineer, Assistant Engineers, Forman will receive along with the Consultants Supervisors the following training:**
- **Procedures to execute the works under the work**
 - **Work planning**
 - **Forms**
 - **inspection**
 - **EHS Plan**
- **The Contractor shall provide the venue and hospitality for all the training and will guarantee the attendance of all appointed staff.**



MILLENNIUM
CHALLENGE ACCOUNT - JORDAN
Partners in Development

Environmental, Health and Safety Plan



MILLENNIUM
CHALLENGE ACCOUNT - JORDAN
Partners in Development

Water Smart Homes- Infrastructure Works

Environment , Health and Safety Plan

- **EHS Plan establishes the framework needed to ensure safety and good health of employees involved in the construction activities, the project beneficiaries and finally the general public.**
- **The Contractor shall read, understand and comply the EHS plan.**

Water Smart Homes- Infrastructure Works



MILLENNIUM
CHALLENGE ACCOUNT - JORDAN
Partners in Development

Environment , Health and Safety Plan

- **The Contractor should ensure all safety measures are followed in the working sites. The Supervisor will verify the compliance of the EHS Plan at each construction site before allowing the start of any repair works.**
- **The Contactor visibility and identification**
- **The safety equipments (item 2 in BOQ)**



Environment , Health and Safety Plan

➤ **Trafficking In Persons Risk Management**

- **TIP will not be tolerated on the construction sites. All contractor personnel must be over 18 years old and must be paid according to Jordanian Labor Law.**
- **The contractor shall sign a Declaration for not-participating in TIP.**



MILLENNIUM
CHALLENGE ACCOUNT - JORDAN
Partners in Development

Work Procedures

Water Smart Homes- Infrastructure Works



MILLENNIUM
CHALLENGE ACCOUNT - JORDAN
Partners in Development

Work Procedure

➤ FORMS

1. Work Form

2. Site Possession Form

3. Measurement Form

4. Environmental, Health and Safety Checklist

5. Works Inspection Form

6. Works Acceptance Form

Water Smart Homes- Infrastructure Works



Work Procedure

Working Hours

- **Working Hours should be from 9 am – 5 pm**
- **The work plan should consider special working hours for some crews considering that in some cases there could not be access to the dwellings during normal construction working hours.**

Water Smart Homes- Infrastructure Works



Work Procedure

➤ **Special Needs of Beneficiaries**

When the Contractor schedules an appointment with the NAF beneficiary, it will request information about any special needs of the beneficiaries to be able to address them properly during the execution of the repair works.



MILLENNIUM
CHALLENGE ACCOUNT - JORDAN
Partners in Development

Cost Structure

Water Smart Homes- Infrastructure Works



Cost Structure

➤ **BOQ**

- **Units and Quantities (new or replacement)**
- **Site Possession**

➤ **Unit Price Consistency evaluation**



MILLENNIUM
CHALLENGE ACCOUNT - JORDAN
Partners in Development

Connection to WAJ Sewage Network

Water Smart Homes- Infrastructure Works

Connection to WAJ Sewage Network

Connection to WAJ sewage network includes:

- **Septic Tank Decommissioning**
- **Collection manhole in the dwelling.**
- **Connection manhole to WAJ sewage network , should be made under WAJ specifications.**

Package	No. of cases
Package I	2
Package II	2
Package III	2
Package IV	1



MILLENNIUM
CHALLENGE ACCOUNT - JORDAN
Partners in Development

THANK YOU