

# Workshop on SASPARM2.0

Support Action for Strengthening PAlestine capabilities for seismic Risk Mitigation

**May 18, 2016 – Multimedia Room, Eucentre Foundation Pavia, Italy**

## AGENDA

- |             |   |
|-------------|---|
| 10.30-10.40 | <i>Opening and welcoming remarks</i>  |
| 10.40-12.20 | <b>First session: Overview of the SASPARM2.0 project</b>  |
| 10.40-11.00 | Development of the Web-Based Platform for seismic risk analysis and mitigation<br><b>Dr. Barbara Borzi (Eucentre)</b>   |
| 11.00-11.20 | Collection of structural data by Palestinian practitioners to implement the vulnerability models<br><b>Prof. Jalal Dabbeek (ANNU)</b>                                       |
| 11.20-11.40 | Training courses on seismic risk and seismic risk mitigation<br><b>Dr. Ricardo Monteiro (IUSS)</b>  |
| 11.40-12.00 | Tools and guidelines to quantify and reduce seismic risk in Palestine<br><b>Dr. Paola Ceresa (IUSS)</b>   |
| 12.00-12.20 | Social-economic impact – Questionnaire to stakeholders<br><b>Prof. Alberto Monti (IUSS)</b>   |
| 12.20-12.40 | <i>Visit to the TREES Lab</i>   |
| 12.40-14.00 | <i>Lunch</i>  |
| 14.00-15.20 | <b>Second session: Support actions by international stakeholders for strengthening Mediterranean and EU Neighbouring countries capabilities for seismic risk mitigation</b> |
| 14.00-14.20 | <b>Mr. Danilo Bilotta</b><br>(Italian Department of Civil Protection – International Relations Unit)  |
| 14.20-14.40 | <b>Ms. Luna Abu Swaireh</b><br>(UNISDR – Head of Regional Office for Arab States)   |
| 14.40-15.00 | <b>Eng. Roberto Schiliro</b><br>(DG Echo - Civil Protection Policy Unit)  |
| 15.00-15.20 | <b>Eng. Luigi Ronsivalle</b><br>(President of the Study Centre of National Council of Engineers)  |
| 15.20-16.00 | <b>Third session: Round table on issues and challenges, lessons learned and recommend solutions and adjustments for the remaining duration of the project</b>               |



# **Support Action for Strengthening PAlestine capabilities for seismic Risk Mitigation**

## **SASPARM 2.0**

**Collection of structural data by Palestinian practitioners to implement the  
vulnerability models**

**Prof. Jalal Dabbeek**  
**An Najah National University**



## Presentation outline

1. General overview of SASPARM 1 and SASPARM2: the dissemination activities and target groups;
2. Integration and Interaction of SASPARM2 with other Projects and Activities (EU, UNISDR, UNDP, OCHA, Red Crescent, Red Cross, etc);
3. General overview of building taxonomy in Palestine (Nablus city as a case study);
4. Collection of structural data by Palestinian practitioners to implement the vulnerability models ;
5. SASPARM2 dissemination activities and Sendai Framework for Disaster Risk Reduction in Palestine;
6. The following steps / What is next?





## 1. General overview of SASPARM 1 and SASPARM2 : dissemination activities and target groups;

### SASPARM 1

### Conferences





# SASPARM 2.0



**Results: Adopting the JSBC**

**Workshops and meetings**

**SASPARM 1**



ECHO/SUB/2014/694399 - SASPARM 2.0 Support Action for strengthening PAlestine capabilities for seismic Risk Mitigation  
Project co-funded by ECHO - Humanitarian Aid and Civil Protection

# SASPARM 2.0



## Training Courses



ECHO/SUB/2014/694399 - SASPARM 2.0 Support Action for strengthening PAlestine capabilities for seismic Risk Mitigation  
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# SASPARM 2.0



## Lectures

## SASPARM 1



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## Integration and Interaction with other Projects and Activities

## SASPARM 1





**Tenth of reports,  
interviews,  
articles...etc**

**SASPARM 1**

## Media Coverage

- Web sites
- Radios
- TVs
- Films and photos
- Newspapers
- Face book,...etc



<http://www.sasparm.ps/en/?page=one&cat=41>

EU-PA-SAR-2010-000000 - SASPARM 2.0 Support Action for strengthening Palestine capabilities for seismic Risk Mitigation  
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## Local workshops and meetings

A Workshop Conducted on “Disaster Risk Reduction in Palestine: Palestine Safe City Standards and the 10 Essentials for Making Cities Resilient” - Sendai Framework, Tulkarem **24/03/2016**



### Meetings with stakeholders in Nablus Municipality



<http://sasparm.ps/en/?page=details&newsID=236&cat=3>

<http://sasparm.ps/en/?page=details&newsID=238&cat=3>

<http://sasparm.ps/ar/?page=details&newsID=220&cat=3>



## ورشة عمل "تطوير نظام إدارة مخاطر الكوارث في فلسطين"

### Workshop on "Development of Disaster Risk Management Program in Palestine."



#### •Several meetings with local and national stockholders have been done during 2015 and 2016, such as:

Engineers Association, Contractors Union, major municipalities like Nablus, Hebron, Ramallah, Tulkarm and Bethlehem, PA ministries like Housing and Public Works, local government, Education, Palestinian Environment Authority, Civil Defense, National Agency for Disaster Risk Mitigation, Chamber of Commerce and Industry of Nablus, and other National committees in which President office, the Prime Minister's office and the different ministries are represented (The National technical team for the development of Disaster Risk Management system).

<http://sasparm2.com/workshop-national-team-of-develop-disaster-risk-management-system/>



<http://sasparm.ps/ar/?page=details&newsID=178&cat=3>

<http://sasparm2.com/workshop-on-development-of-disaster-risk-management-program-in-palestine/>



## Training courses

## SASPARM2 جلسة تدريبية لطلاب الجامعة ضمن مشروع

### Training Sessions University Students - SASPARM 2.0



04/11/2015



<http://sasparm.ps/ar/?page=details&newsID=204&cat=3>



<http://www.sasparm2.com/training-sessions-university-students-sasparm-2-0/>



## Training Sessions for Practitioners SASPARM 2 **جلسة تدريبية للمهندسين ضمن مشروع SASPARM2**



**05/11/2015**



## A training course for students at planning engineering department within the project SASPARM 2

**02/12/2015**



<http://sasparm.ps/ar/?page=details&newsID=206&cat=3>

<http://sasparm2.com/a-training-course-for-students-planning-engineering-department-within-the-project-sasparm-2/>

<http://sasparm.ps/ar/?page=details&newsID=203&cat=3>

<http://www.sasparm2.com/training-sessions-for-practitioners-sasparm-2/>



## دورة تدريبية لطلاب قسم هندسة البناء والمدني ضمن مشروع

**A training course for students at building and civil engineering Departments - SASPARM2 -**



**05/12/2015**

**Group  
no 1**



**Group  
no 2**



<http://www.sasparm2.com/a-training-course-for-students-of-the-department-of-construction-and-civil-engineering-within-the-project-sasparm-2/>



<http://sasparm.ps/ar/?page=details&newsID=207&cat=3>

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**Training course on data collection in site from several buildings in Nablus city and fill out the form to assess the vulnerability and determine their resistance to earthquakes**



**4/04/2016**

**Group  
no 3  
and no 4**



<http://sasparm.ps/en/?page=details&newsID=237&cat=3>



<http://sasparm.ps/ar/?page=details&newsID=224&cat=3>

## 2. Integration and Interaction of SASPARM2 with other Projects and Activities (EU, UNISDR, UNDP, OCHA, Red Crescent, Red Cross, etc);

An Najah University participated in a workshop For Disaster Risk Reduction in Beirut



**15/03/2016**



An-Najah Participates in an International Workshop on Mitigation of Disasters Due to Severe Natural Events in Sir Lanka **12/03/2016**



<http://sasparm2.com/an-najah-participates-in-an-international-workshop-on-mitigation-of-disasters-due-to-severe-natural-events-in-sir-lanka/>

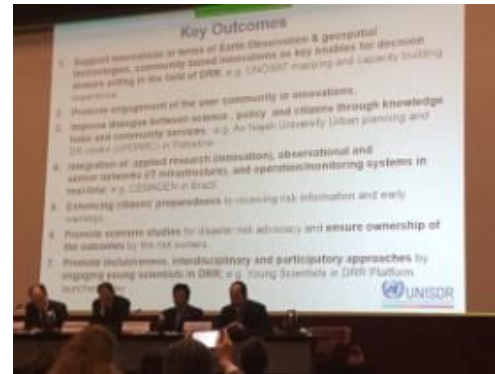
<http://sasparm2.com/an-najah-participates-in-a-workshop-on-disaster-risk-reduction-in-beirut>  
20-march-2016/

<http://sasparm.ps/ar/?page=details&newsID=216&cat=3>



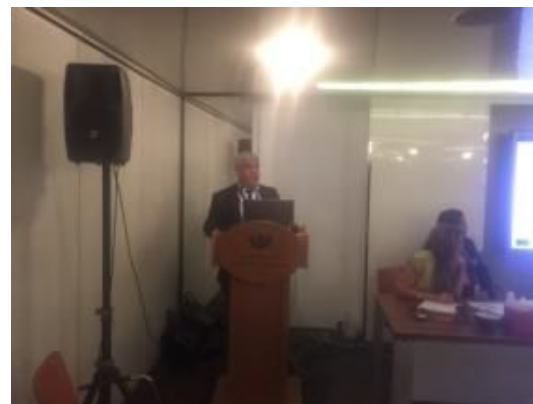
## المشاركة في مؤتمر الأمم المتحدة "دور العلوم والتكنولوجيا في الحد من مخاطر الكوارث" سويسرا- جنيف

**An-Najah Participates in the UNISDR Science and Technology Conference, Geneva, 27-29/01/2016**



**The Arab Region Meeting on the Implementation of Sendai Framework for Disaster Risk Reduction, Egypt-Cairo**

**8/11/2015 UNISDR**



<http://sasparm.ps/ar/?page=details&newsID=205&cat=3>

<http://www.sasparm2.com/an-najah-professor-participates-in-the-arab-region-meeting-on-the-implementation-of-sendai-framework-for-disaster-risk-reduction/>

ECHO/SUB/2014/694399 - SASPARM 2.0 Support Action for strengthening PAlestine capabilities for seismic Risk Mitigation  
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<http://sasparm.ps/ar/?page=details&newsID=209&cat=3>

<http://sasparm.ps/en/?page=details&newsID=230&cat=3>



## An-Najah /UPDRR Participates in a Workshop on Earthquakes in Italy, **RELEMR**, 26/10/2015



## An-Najah /UPDRR Participates in a Workshop on Arab Cities Disaster Resilience in Jordan



<http://www.sasparm2.com/an-najah-professor-participates-in-a-workshop-on-arab-cities-disaster-resilience-in-jordan/>

<http://sasparm.ps/ar/?page=details&newsID=198&cat=3>

<http://sasparm.ps/ar/?page=details&newsID=213&cat=3>

<http://sasparm2.com/an-najah-professor-participates-in-a-workshop-on-earthquakes-in-italy/>



## Training course at An-Najah National University in the field of seismic design of buildings 22/12/2015



## A Training course on Seismic Design of buildings in Tulkarm city



<http://sasparm.ps/ar/?page=details&newsID=180&cat=3>

<http://sasparm2.com/earthquake-risk-mitigation-in-palestine-and-a-training-courses-on-seismic-design-of-buildings-in-tulkarm-city/>



<http://www.sasparm2.com/graduate-training-course-at-an-najah-national-university-in-the-field-of-seismic-design-of-buildings-2/>

<http://sasparm.ps/ar/?page=details&newsID=208&cat=3>

ECHO/SUB/2014/694399 - SASPARM 2.0 Support Action for strengthening PALESTINE capabilities for seismic Risk Mitigation  
Project co-funded by ECHO - Humanitarian Aid and Civil Protection



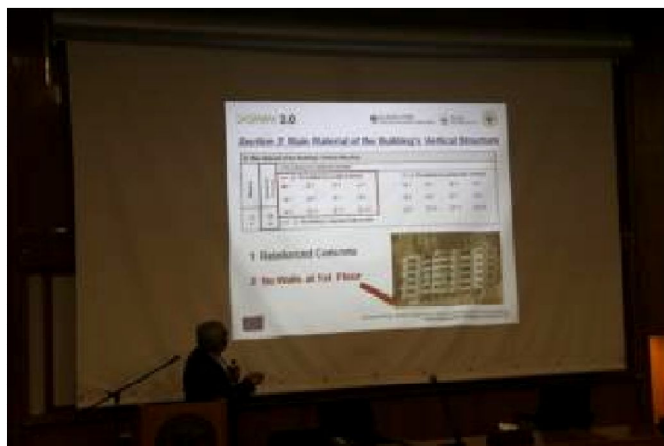
## Training courses at An-Najah National University in the field of seismic design of buildings



## A Training course on Seismic Design of buildings in Jenin City



## Short Training Course on Disaster Risk Reduction - SASPARM2 (Students and Citizens)



12/03/2016



<http://sasparm.ps/en/?page=details&newsID=233&cat=3>

<http://sasparm.ps/ar/?page=details&newsID=219&cat=3>



## Building capacity within civil society and general public to cope with natural disasters by using several dissemination activities

- ❑ Community service programs/courses: **5000 students** each year, short courses on DRM, Blood donation, 50 working hours with emergency response org., working for/with vulnerable citizens (with children's, mothers, handicapped or disabled persons, etc)...
- ❑ Developing engineering courses for non engineers and urban planning courses for not planners.
- ❑ Memorandum of understanding with CD, R Crescent, OCHA, R C, etc.....





## Five Short Training Courses on Disaster Risk Management and Emergency Response (in five cities: Ramallah, Salfeet, Tulkarem, Hebron and Bethlehem). - Relief Medical Care Asso...



<http://sasparm.ps/ar/?page=details&newsID=194&cat=3>



<http://sasparm2.com/disaster-management-and-emergency-response-short-training-course-in-ramallah/>

ECHO/SUB/2014/694 - SASPARM 2.0 Support Programme for strengthening disaster preparedness for disaster risk reduction  
Project co-funded by ECHO - Humanitarian Aid and Civil Protection

# Media Coverage



- Web sites
- Radios
- TVs
- Newspapers
- Face book,...etc





### 3. General overview of building taxonomy in Palestine (Nablus case study);

#### Building types:

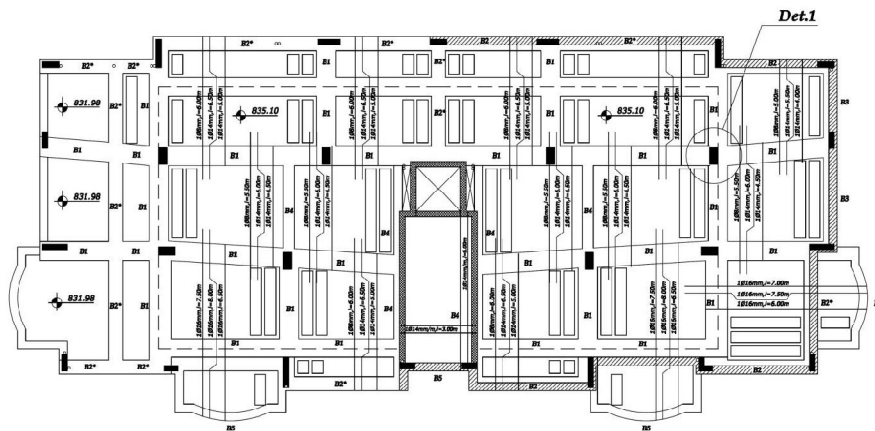
- Reinforce concrete frame buildings;
- Shear wall buildings;
- Masonry Buildings;
- Buildings with soft storey.
- Reinforce concrete buildings with cantilever



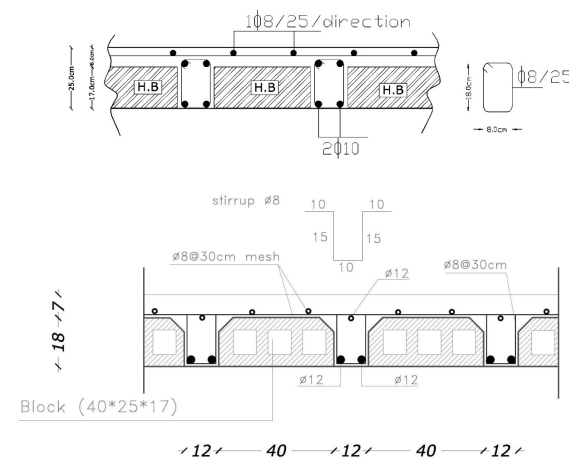
Typical R.C. Frame Buildings in Nablus, Palestine

## 1. REINFORCED CONCRETE FRAME BUILDINGS

This type of buildings is the most common in Nablus. It mainly consists of in-situ casted reinforced concrete slabs supported by reinforced concrete beams and columns. This type is mostly used for residential buildings with 2 to 3 bays in both directions and up to the heights of 15 floors. Generally it is common to use for these buildings ordinary concrete of cylindrical compressive strength between 24 and 32 MPa. The reinforcing steel can be of tensile strength 420 MPa. The partitions are generally made of hollow concrete blocks with 100 mm thickness.



Typical Slab Reinforcement for a Frame Concrete Building

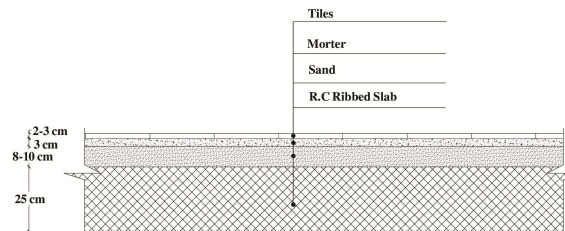


Typical Ribbed Slab Cross Section

The type of slabs have an influence also on the buildings geometrical dimensions (slab span, interstory height). The two used typologies of slabs are listed below.



One way ribbed slab system



Typical Architectural Floor Section



Cross Section of Exterior Masonry Wall



Concrete Columns in an R.C. Frame Building



Steel Cage for a Concrete Column in an R.C. Frame Building



## 2. SHEAR WALL BUILDING



Shear Wall Building with Stone Cladding



Stone Cladding of Shear Wall Building



Reinforcement Used to Fasten the Stone Cladding to the Shear Wall



## 3. MASONRY BUILDINGS

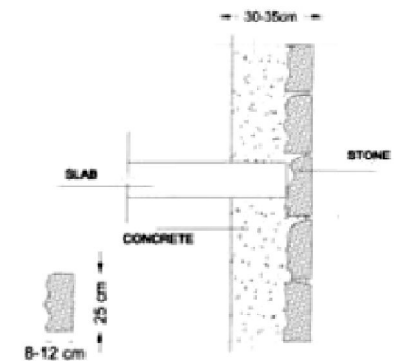
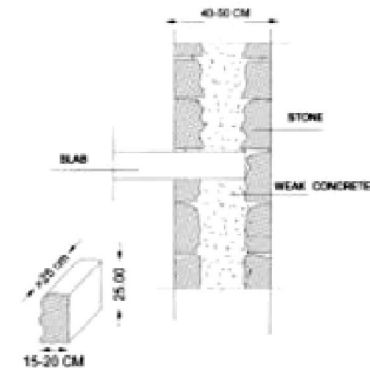
Masonry buildings used to be common in Nablus up to the 1970. Masonry buildings comprise masonry walls that support reinforced concrete slabs.



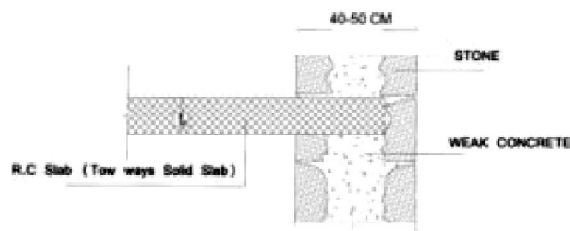
A Three Story Masonry Building



An Old Masonry Building



Detailing of Section



Concrete Slab in Masonry Buildings

## 4. BUILDING WITH SOFT STORY



A Building with Partial Soft Story



A Building with Full Soft Story



Circular Concrete Columns in an R.C. Frame Building



## **4. Collection of structural data by Palestinian practitioners to implement the vulnerability models ;**



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# SASPARM 2.0



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[illegible]

| Horizontal Structure  |                                  |                                  |                          |                       | Roof                             |                       |                       |                       |  |
|-----------------------|----------------------------------|----------------------------------|--------------------------|-----------------------|----------------------------------|-----------------------|-----------------------|-----------------------|--|
| Not checked           | Steel plate with strong beams    | Reinforced concrete ribbed slab  | Reinforced concrete slab | Steel reinforced slab | Heavy and flat                   | Heavy and sloped      | Light and flat        | Light and sloped      |  |
| <input type="radio"/> | <input checked="" type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/>    | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |  |

4) Regularity

| In plan               |                                  | In elevation          |                                  |
|-----------------------|----------------------------------|-----------------------|----------------------------------|
| Regular               | Not regular                      | Regular               | Not regular                      |
| <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> |

5) Geomorphological Data

| Morphology site       |                       |                                  |                       | Landslides                       |                       | Category of soil foundation |
|-----------------------|-----------------------|----------------------------------|-----------------------|----------------------------------|-----------------------|-----------------------------|
| Slope                 | Strong slope          | Wight slope                      | Lowland               | None                             | Existing              |                             |
| <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | (B)                         |

6) Notes

*Building code including the street no and Building no: 412-0618-005*




|                        |  |                      |
|------------------------|--|----------------------|
| Date <u>20/06/2019</u> | The Compiler (Block Letters)<br><u>Bvg</u> | Sign of the Compiler |
|------------------------|--|----------------------|





Map **Building form - Practitioners** Building form - Citizens Hazard Fragility Risk Retrofit

**Building Form**

New Form Delete Form Close Form Help

Date: 2016-02-09  
Name of the compiler: ESSEU TEAM  
Education level: Civil Engineer

**1. Identification of the Building**

Municipality: Nablus  
Street name: Al-Najah Street Street number: 618  
Name of the building: Al-Huda Building Building number: 005

Geographical Coordinates (WGS 84 System - Decimal Degrees)  
Latitude: 32.22613931  
Longitude: 35.22046477  
ex. 45.98763  
Get last clicked position

Position of Building: Isolated Building

**2. Description of the Building**

**Metrics**

N° Total floors with basement: 8 N° Basements: 0  
Average of floor height [m]: 2.50-3.50 Average of floor area [m²]: 301 - 400  
Construction Year: >= 2002 Renovation Year:

**Type of Use**

Insert the number of units for each type of use

Housing: 20 % of Use: > 65%  
Productive: 0 Property: Private  
Trade: 0 Occupants: 100  
Offices: 0  
Public Service: 0  
Deposit: 0  
Touristic-Accommodation: 0

**3. Structural Data**

Vertical Structure of the Building: ☐ Masonry ☒ Reinforced Concrete

**Reinforced Concrete Properties**

| B.1 The building has no wall at Floors: |                             |                             |                                | B.2 The building has partially walls at Floors: |                             |                             |                                |
|---|-----------------------------|-----------------------------|--------------------------------|---|-----------------------------|-----------------------------|--------------------------------|
| <input type="checkbox"/> 1              | <input type="checkbox"/> 2  | <input type="checkbox"/> 3  | <input type="checkbox"/> 4     | <input checked="" type="checkbox"/> 1           | <input type="checkbox"/> 2  | <input type="checkbox"/> 3  | <input type="checkbox"/> 4     |
| <input type="checkbox"/> 5              | <input type="checkbox"/> 6  | <input type="checkbox"/> 7  | <input type="checkbox"/> 8     | <input type="checkbox"/> 5                      | <input type="checkbox"/> 6  | <input type="checkbox"/> 7  | <input type="checkbox"/> 8     |
| <input type="checkbox"/> 9              | <input type="checkbox"/> 10 | <input type="checkbox"/> 11 | <input type="checkbox"/> >= 12 | <input type="checkbox"/> 9                      | <input type="checkbox"/> 10 | <input type="checkbox"/> 11 | <input type="checkbox"/> >= 12 |

☐ B.3 The building is composed totally by walls ☐ B.4 The building has RC shear walls

**Horizontal Structure and Roof**

| Horizontal Structure  | Roof  |
|---|---|
| <input type="checkbox"/> Not identified                             | <input checked="" type="radio"/> Heavy and flat |
| <input type="checkbox"/> Solid slab with drop beams                 | <input type="radio"/> Heavy and sloped          |
| <input checked="" type="checkbox"/> Reinforced concrete ribbed slab | <input type="radio"/> Light and flat            |
| <input type="checkbox"/> Reinforced concrete slab                   | <input type="radio"/> Light and sloped          |
| <input type="checkbox"/> Steel concrete slab                        |   |
| <input type="checkbox"/> Cantilever structures                      |   |

**4. Regularity**

| In plan  | In elevation   |
|--|--|
| <input checked="" type="radio"/> Regular <input type="radio"/> Not Regular | <input checked="" type="radio"/> Regular <input type="radio"/> Not Regular |

**5. Geomorphological Data**

| Morphology site  | Landslides   | Category of soil foundation |
|--|--|-----------------------------|
| <input type="radio"/> Ridge <input type="radio"/> Strong slope <input checked="" type="radio"/> Slight slope <input type="radio"/> Lowland | <input checked="" type="radio"/> Absent <input type="radio"/> Existing | B                           |

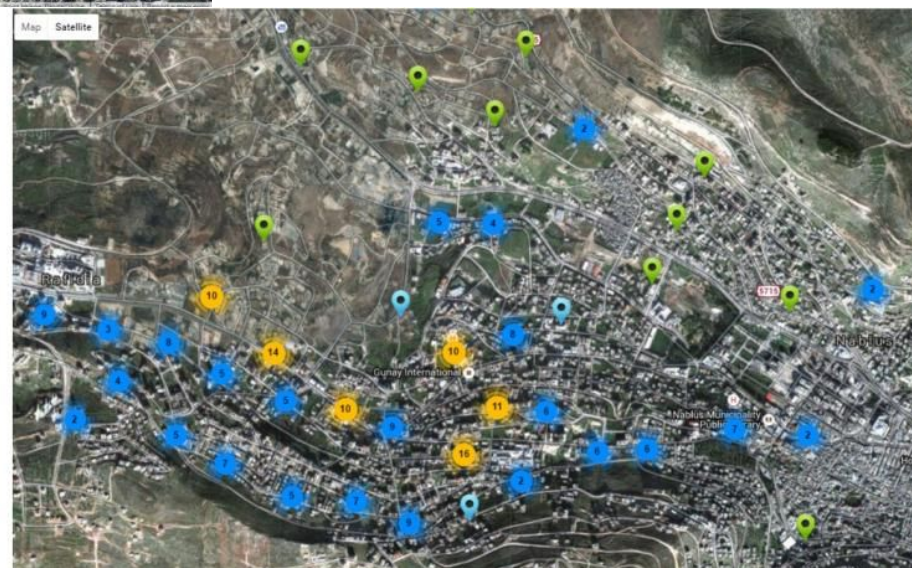
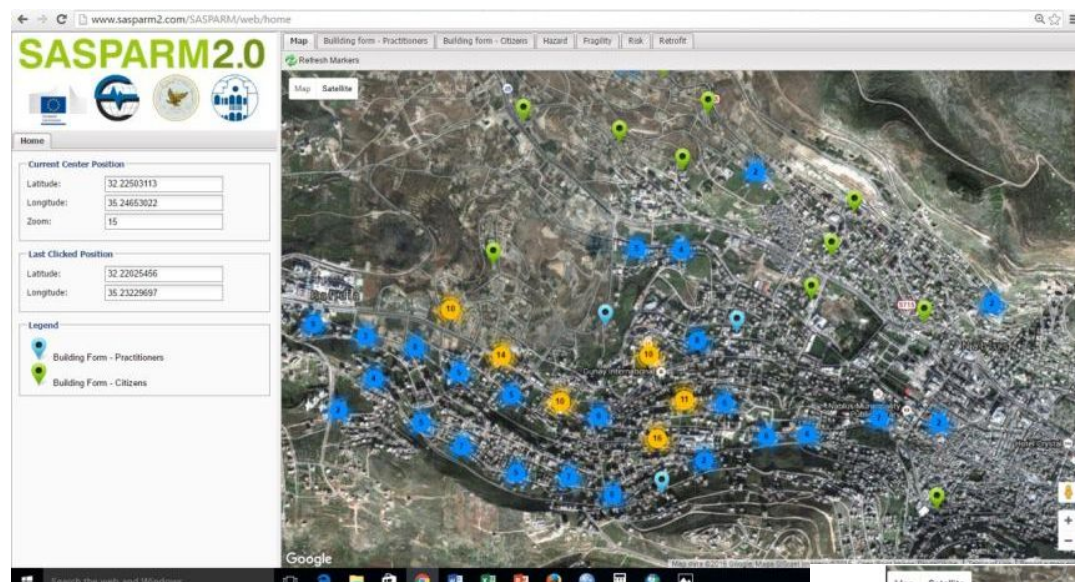
**6. Notes**

Building code including the street no and building no: 412-0618-005

Save Cancel



# SASPARM 2.0





## 5. فعاليات مشروع ساسبارم وإطار سيندائي للحد من مخاطر الكوارث

### 5. SASPARM2 dissemination activities and Sendai Framework for Disaster Risk Reduction in Palestine;

**2030 - 2015**



## أولويات العمل

## Priorities for action

الأولوية ١ - فهم مخاطر الكوارث

**Priority 1: Understanding disaster risk**

الأولوية ٢ - تعزيز [الحكم والمؤسسات/الترتيبات المؤسسية/الأطر التنظيمية والقانونية والسياسية] لإدارة مخاطر الكوارث

**Priority 2: Strengthening governance to manage disaster risk**

الأولوية ٣ - الاستثمار في مجال الحد من مخاطر الكوارث من أجل زيادة القدرة على مواجهتها

**Priority 3: Investing in disaster risk reduction for resilience**

الأولوية ٤ - تعزيز التأهب للكوارث بغية التصدي لها بفعالية و "إعادة البناء بشكل أفضل" في مرحلة التعافي والإصلاح وإعادة البناء

**Priority 4: Enhancing disaster preparedness for effective response, and to "Build Back Better" in recovery, rehabilitation and reconstruction**

**Thank you for your attention.**

