Geoinformation for Sustainable Urban Management and Resilience

(GeoSUMR)

Casablanca Workshop | October 13-17, 2014

FINAL REPORT

Prepared for
ASSOCIATION OF AMERICAN GEOGRAPHERS

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# TABLE OF CONTENTS

I Introduction p. 5
- Eye on Earth (EoE) and Community Sustainability and Resilience (CSR) Special Initiative
- GeoInformation for Sustainable Urban Management and Resilience (GeoSUMR)

II The Workshop p. 8
- The Agenda
- Participants
- Participant Evaluation Results
- Additional Suggestions

III Outreach p. 12
- Websites
- Print and Media Coverage

IV Outcomes and Next Steps p. 13
- Strategies and Action Items from the Workshop
- Memoranda of Understanding with Mundiapolis University
- Continuing partnership with Mundiapolis University
- Future Work in Other Regions
- Presentation at the 2015 EoE Summit

Annex 1: Workshop Agenda, p. 17
Annex 2: Participants List, p. 22
Annex 3: Evaluation Forms, p. 23
Annex 4: Evaluation Results Day 1, p. 34
Annex 5: Evaluation Results Day 2, p. 38
Annex 6: Evaluation Results Day 3, p. 43
Annex 7: Evaluation Results Day 4, p. 47
Annex 8: Evaluation Results Day 5, p. 51
I Introduction

Eye on Earth (EoE) and Community Sustainability and Resilience (CSR)

The Eye on Earth (EoE) initiative addresses the crucial importance of environmental and social information and net-working in decision-making. The initiative’s aim is to facilitate sharing environmental, social, and economic data and information, provided by a diversity of knowledge communities, in support of sustainable development. More specifically EoE is facilitating the global convergence of world class thinkers, actors and capacity builders focusing on resolving data and information gaps, blockages, and needs that required for more effective decision-making for sustainable development.

In December 2011, the Environmental Agency - Abu Dhabi (EAD) through the Abu Dhabi Global Environmental Data Initiative (AGEDI) in partnership with the United Nations Environmental Program (UNEP), convened global leaders, innovators and decision-makers for the inaugural Eye on Earth Summit in Abu Dhabi. At this Summit eight Special Initiatives were identified. These addressed major environmental issues and were categorized into 5 thematic and 3 foundational initiatives. These initiatives are considered by the EoE community to fundamentally improve the landscape of environmental and social information networking for the benefit of mankind, and from which compelling and tangible results can be achieved over the next 2-5 years. The three foundational initiatives are: Eye on Global Network of Networks, Eye on Environmental Education, and Eye on Access for All. The thematic initiatives include: Eye on Community Sustainability and Resilience, Eye on Biodiversity, Eye on Disaster Management, Eye on Oceans and Blue Carbon, and Eye on Water Security.

The GeoInformation for Sustainable Urban Management and Resilience (GeoSUMR) project described in this report is part of the Eye on Community Sustainability and Resilience (CSR) Special Initiative. CSR focuses on developing a framework for the collection and sharing of urban environmental and social data, information, and tools for medium-sized and large cities on various geographic scales – local, national, and regional – so that consideration can be given early in the process of urbanization to factors that affect vulnerability or that ensure resiliency. The framework also provides a mechanism for sharing existing urban networks and databases as a way of reducing the effort and cost associated with data collection, and as a stimulus for promoting information and tool sharing.

Within the next five years, CSR is striving to achieve the following outcomes:

- Building and providing access to a common knowledge platform for sharing the outputs of on-going urban sustainability and resiliency programs for the benefit of urban managers and citizens.
• Connecting urban practitioners and researchers, both North-South (N-S) and South-South (S-S) in order to facilitate discussions on urban problems and solutions, as well as data and information sharing.

• Increasing the capacity of urban professionals and civil society to use available urban geospatial data, geospatial technology, and management tools through training workshops, materials, and enhanced public outreach.

• Provide value propositions to policy makers who must support urban planning tools and staff investments.

In 2013 the CSR Special Initiative supported two pilot projects: The Ecocitizen World Map and GeoSUMR. The Ecocitizen World Map project was undertaken by Ecocity Builders and its partners. Its focus is on exploring the use of handheld data capture and interview techniques at the neighborhood level to develop better spatial and resource awareness of place based on resident information. This information is added to local and central government formal databases to enhance decision-maker awareness of urban and neighborhood issues. The project was tested originally in Rio de Janeiro during the Rio+20 conference, and is currently deployed in Medellin, Colombia, Cairo, Egypt and Casablanca, Morocco. Further applications are planned for additional cities in 2015.

**GeoInformation for Sustainable Urban Management and Resilience (GeoSUMR)**

GeoSUMR is a program designed to promote the use of geospatial tools and information by decision-makers in second tier (primarily medium to large) cities in the developing world. Its overarching goal is to improve the efficiency and sustainability of urban infrastructure and service delivery by linking infrastructure planning to both the natural and social/demographic characteristics of these rapidly growing urban centers. The development and application of an integrated approach increases overall urban sustainability and resilience in the face of man-made and natural disasters.

The program supports several types of activities including: (1) workshops for urban professionals that facilitate the exchange of ideas and experience on the use of geospatial tools and information; (2) urban/national capacity building through training of urban professionals in second tier cities to use geospatial tools, information collection, and the application of geoinformation to improve urban management; and (3) research and pilot projects linked to increasing global urban sustainability. More detail can be found at http://eoe.aag.org, www.ict4dev.ma, and www.geosumr.com.

GeoSUMR projects are organized and implemented by a public-private partnership. Current partners include: U.S. Department of State, Association of American Geographers (AAG), Esri,
Ecocity Builders, Trimble Navigation, Ltd., the Environment Agency Abu Dhabi/AGEDI and Mundiapolis University in Casablanca, Morocco. As the program expands additional partners will be sought from other U.S. Government Agencies, international organizations, non-governmental organizations, the private sector, academia, and foundations.

The initial GeoSUMR project in 2004 was a five day GIS/GPS training workshop and idea sharing forum in Amman, Jordan funded by the U.S. Department of State, U.S. Department of Housing and urban Development, and the U.S. Agency for International Development. It was a regional event attended by 50 people from 10 countries in the Middle East/North Africa region. In addition to training in the use of geospatial technology, the forum provided an opportunity for planning experts and policy makers to discuss how geospatial tools and information are used in their countries to address a broad range of urban management and planning issues including water quality, sanitation and waste disposal, food safety, transportation and energy efficiency.

The second project was a four day idea forum in Cairo, Egypt entitled “Space Technology and Geoinformation for Sustainable Development.” This event was jointly sponsored by the U.S. Department of State and the Egyptian National Authority for Remote Sensing and Space Sciences (NARSS). It brought together scientists, technical experts, representatives of international organizations, U.S. and Egyptian Government agencies, and universities and research institutes. Forty-two papers were presented on the applications of remote sensing and GIS to water resource management, agriculture, urbanization, geology and archaeological research. An outcome of the workshop was a U.S.-Egypt joint document that included a priority list of potential collaborative research projects for potential funding by the U.S.-Egypt Fund for Science and Technology Cooperation.

In 2014, GeoSUMR undertook the next series of pilot projects, training workshops, and idea forums. In April, with funding from the OAS, an ecocitizen map was constructed for Medellin, Colombia and presented at the World Urban Forum 7 (WUF 7). In October, supported by a grant from the Environment Agency Abu Dhabi (EAD) and in partnership with Mundiapolis University in Casablanca Morocco, a five-day workshop and idea forum was held in that city. This final report focuses on that event.
II The Workshop

The Agenda

The agenda for the five day event (Annex 1) was developed by representatives of each partner. The first three days focused on training in the use of GPS and GIS technology, the final two days addressed best practice and current applications, and round table discussions on two current topics of interest open data and smart cities.

The content of the workshop was organized to progress from basic skills to more detailed applications.

1. Day 1 “Learning Basics” provided hands-on experience using both GPS devices and GIS software, experiences with crowdsourcing, and strategies for using geoinformation and citizen participation for sustainable urban management. Instructors included representatives of Esri, Trimble Navigation, Ecocity Builders, Mundiapolis University, and the University of Rabat.

2. Day 2 “Applying New Skills” looked at new applications including using GIS for 3D modeling, GeoDesign, and urban resource flows. The afternoon session provided the participants with an opportunity for hands-on data collection and GIS mapping.

3. Day 3 “A Deeper Understanding” focused on presentations of the Ecocitizen World Maps for Cairo and Casablanca by students from Cairo University and Mundiapolis University. Sessions were also devoted to geospatial analysis for urban and territorial management presented by representatives of the Moroccan Ministry of Urbanism and Territorial Management.

4. Day 4 “Best Practices and Current Activities in GeoSUMR” was the first day of the idea forum portion of the workshop. The morning session included the signing of three MOUs between Mundiapolis University and Lydec, the Moroccan Ministry of ICT and the NGO OMDH (Morocco Organization of Human Rights). This was followed by presentations on GIS applications for addressing water issues, urban issues and open data. Presentations were also given about the EoE Disaster Management Special Initiative.
5. Day 5 “Moving Forward Together: Collaborations and Recommendations” was the final day of the workshop. The sessions started with a presentation on the Eye on Earth Summit by a representative of AGEDI. This was followed by two roundtable discussions. One on open data in Morocco, and the second on smart cities. The final presentation was a set of recommendations for maintaining the momentum generated by the workshop. The recommendations are discussed later in this report.

Participants

The workshop was designed for both urban professionals who might have familiarity with the technology, and members of civil society who might not have familiarity. The participants (Annex 2) included university faculty and students from the University of Rabat, Mundiapolis University and the University of Cairo, representatives of NGOs, representatives of Egyptian and Moroccan national government ministries, city governments, and the private sector. The event was by invitation and to promote interaction the number of participants was limited to 40.

Participant Evaluation Results

As part of the learning process for the workshop developers, evaluation forms were designed for each day of the workshop (Annex 3) and were provided to participants at the end of each day. The results of the surveys were tabulated and analyzed by Mundiapolis University (Annexes 4-8). Completed surveys were received by most, but not all of the participants consequently the sample size for each day was small. The following briefly describes the survey results for each of the five days.

Day 1: (Annex 4) Of those who attended (34) only 17 completed surveys were received. Of those who responded, the large majority were students who had previous training in GIS/GPS but were not using the training on a daily basis (88%). Of those who responded to the evaluation of each of the individual sessions in Day 1, the majority found all of the sessions “very useful.” More specifically, the session on “Introduction to GIS” was identified as being useful. However, there was an indication that more interaction between the instructors and the participants was desirable.
Day 2: (Annex 5) There were 36 attendees and 15 responses, again most were from academia. In contrast to Day 1 the majority of respondents had no previous experience with GIS. The evaluation of the individual sessions in Day 2 indicated that the majority of the participants found them very useful. Of particular interest was the evaluation of the field data collection exercise. In response to the question “How can the data collection and mapping exercise be improved?” several suggestions were made:

- Having more machines (GPS devices and computers) so that students don’t have to share
- Developing a more real exercise covering a larger area with more permanent stations
- Allowing more practice time

Day 3: (Annex 6) There were 35 attendees and 12 responses, the majority (58%) from the public sector. Unsurprisingly, a large portion of the participants had previous experience with GPS/GIS (more than 5 years) and use it regularly in their jobs. More than half of the participants found the presentation of the Ecocitizen Maps very useful, and 100% of the participants found the session on Urban and Territorial Management very useful. In terms of other topics that should be discussed the following were listed:

- Smart Cities
- New technologies

Day 4: (Annex 7) This was the first day of the idea forum portion of the workshop and 39 people attended and 26 responses were received. Of those responding, more than half were in academia, more than half had previous training in GIS/GPS but did not use the technology. The majority of respondents found the individual sessions either very or moderately useful. Additional topics suggested for discussion included:

- Smart cities
- Waste management/poverty maps
- More best practices for using GIS/GPS in urban issues
- Impact of culture and level of development on ecocity project
- TIC and big data
- Big data and institutional issues
- Next steps

Day 5: (Annex 8) Thirty people attended and 28 responded to the questionnaire. The majority was employed in academia. Most had previous experience with GIS/GPS but do not use it regularly in their jobs. The participants found both sessions (Open Data and Smart Cities) very useful. Suggestions for other topics included:

- Influence of culture and level of development on ecocities
- Smart Cities for education
- Perhaps the workshop should be divided into 2 separate workshops
• The field exercise needs to have more time devoted to it
• More project planning
• Examples from a smart city
• TIC and big data
• Next steps

Additional Suggestions

Although the workshop received excellent reviews from the participants and there were few suggestions for changes, there are some structural changes that the author feels can improve the quality of the experience.

Several of the participants in their comments suggested that more time should be spent on the hands-on exercise so that they can become more familiar with the technology and the applications. There was also the suggestion that the example should be larger and more complex making it more realistic. This could be accomplished by separating into 2 separate workshops, designed for different audiences. The training portion could then be refocused around the exercise and the supporting presentations would be linked more closely to the exercise. The length of the training might still be 3 days but the content would be reorganized.

A second change would require rethinking the ratio of presentation time to discussion time. There really wasn’t adequate time for the speakers both to present their topic and to have a discussion with the audience. Also speakers overran their time slots reducing any time budgeted for discussion. Solutions might be either to have fewer speakers each day or to organize more presentations in a panel format limiting individual presentations and encouraging discussion.

An additional change related to the previous suggestion is to enforce time limits more vigorously. When speakers are invited the extent of their time slot needs to be specified and adhered to otherwise there is no time for discussion.
III Outreach

Websites

To ensure the sustainability of the GeoSUMR events in general and the Casablanca workshop in particular, three websites have been developed. The first is part of the AAG Special Initiatives website located at [http://eoe.aag.org](http://eoe.aag.org). This website currently provides information on the Special Initiatives in which AAG participates—Community Sustainability and Resilience, and Disaster Management. The expectation is that the site will become a location for information on all eight Special Initiatives. This site also provides a link to a second GeoSUMR specific site.

This second site: [www.ict4dev.ma](http://www.ict4dev.ma) was developed and is maintained by Mundiapolis University. The site will eventually contain all the materials from the Casablanca workshop, including the training materials and photographs of the event. Associated with the website is a periodic newsletter that is distributed to those who attended the workshop and any others who might like to join the group. The website and the newsletter are designed to provide focal points around which a professional network interested in open data and smart cities can develop. The site also provides an opportunity for group members to provide information about projects related to the use of geospatial technology and information for sustainability.

The third site [www.geosumr.com](http://www.geosumr.com) was developed by Esri for collecting materials for the workshop. It also contains links to the materials from the two previous GeoSUMR workshops in Amman and Cairo. The contents of this site eventually will be moved to the site maintained by Mundiapolis. This site currently is referenced on the two other sites.

Print and Media Coverage

The workshop received a great deal of coverage in newspapers, and on radio and television. Coverage in the print media was in both French language and Arabic language dailies. Copies of some of the reportage are available on [http://ict4dev.ma/presse/](http://ict4dev.ma/presse/).

- Le Matin article: [http://ict4dev.ma/geosumr-sur-le-matin/](http://ict4dev.ma/geosumr-sur-le-matin/)
- YABILADI.com article: [http://ict4dev.ma/geosumr-sur-yabiladi/](http://ict4dev.ma/geosumr-sur-yabiladi/)
- MASSOLIA.com article: [http://ict4dev.ma/geosumr-sur-massolia-com/](http://ict4dev.ma/geosumr-sur-massolia-com/)

In addition to print coverage there were spots on Moroccan television and radio.

- Medi1 Radio: [http://ict4dev.ma/medi1radio](http://ict4dev.ma/medi1radio)
- Medi1 TV: [http://ict4dev.ma/geosumr-sur-medi-1-tv](http://ict4dev.ma/geosumr-sur-medi-1-tv)
The workshop also has a Twitter account that is still active at @geosumr.

An article on the workshop also appeared in the EoE newsletter: 

Photos of the workshops are available here: http://ict4dev.ma/geosumr/galerie-photo/.

**IV Outcomes and Next Steps**

**Strategies and Action Items from the Workshop**

The organizers and participants in the workshop felt that the activity generated a great deal of positive energy that should be captured and used to ensure sustainability beyond this workshop. Mundiapolis proposed that this sustainability can be achieved by developing a “community” of practitioners interested in the subject matter connected electronically so that they can share experiences and information. The publication of a newsletter will facilitate this communication. As described above Mundiapolis launched a website containing the information from the workshop as well as a regular newsletter. The initial members of this community are those who participated in the workshop. The Mundiapolis GeoSUMR website has been set up and the first issue of the newsletter was distributed.

In addition to the website a primary output of the workshop was the identification by the participants of strategies and specific actions to be taken to support them. The proposed strategies include:

- Strengthen the participative approach with organizations for launching concrete and relevant projects, similar to what was developed with Lydec, the Ministry of Industry, Commerce and Technology, and OMDH.
- Push applied research
- Build on the experience of Cairo, Casablanca and Mohamedia using the process for developing ecocitizen maps.
- Build momentum at different levels:
  - Local – Private sector (Lydec Casablanca), public sector (regional observatories of environment), civil society
  - National – Ministry of Environment, Ministry of ICT, Civil Society, other universities
  - International – Private sector (Esri, Socrata, Trimble), international organizations (World Bank), NGOs (AAG, Ecocity Builders), academia (Cairo University)
- Build sustainable partnerships with a range of organizations including universities, civil society, private sector, public sector, and international organizations.
The proposed actions that Mundiapolis and the participants can take include:

- Develop the Open Data/Smart City community (currently underway)
- Visit the GeoSUMR websites ([www.ict4dev.ma](http://www.ict4dev.ma)) and ([www.geosumr.com](http://www.geosumr.com))
- Join the mailing list and subscribe to the newsletter at ICT4Dev
- Organize meetings with different data providers such as the Mayor of Casablanca and the Ministry of Environment.
- Consider the requests of the representatives of the Municipality of Agadir and the Environmental Observatory of BenSlimane to organize a future ecocitizen map project in collaboration with local civil society in order to develop an ecocity network of Moroccan cities
- Organize a meeting on the index of open data with representatives of Maroc Numerique (November)
- Participate in official meetings on Open Data (MPGOV) based on an invitation from the Ministry of New Technologies (November)
- Propose achievable applications of the technologies that can be the basis of student project
- Make budget data available on [www.data.gov.ma](http://www.data.gov.ma)
- Develop a map of the hospitals in Casablanca using crowdsourced data
- Continue collaboration between Cairo University and Mundiapolis University in the context of the Ecocity project in order to present it at the Ecocity Summit in Abu Dhabi (October 2015)
- Share resources on the subjects of Smart Cities and Open Data.
- Build contacts to build ecocity bootcamps with GeoSUMR participants in other neighborhoods

**Memoranda of Understanding with Mundiapolis University**

As part of the idea forum portion of the workshop Mundiapolis University signed three MOUs. One each with Lydec (the local utility), Digital Economy Department of the Ministry of ICT (Industry, Trade, Investment and Digital Economy) and OMDH (the Moroccan human rights organization). The MOU with Lydec includes the following areas of partnership:

- Developing research and innovation in the area of ICT
- Sharing information
- Training Mundiapolis University students through internships

The MOU with the Ministry of ICT includes:

- Developing research and innovation projects
- Facilitating sharing of data and information
- Promoting meetings between the public and the private sectors
• Present the results of a study

The MOU with the Department of Digital Economy includes:

• Placing at the disposal of the University the facts and information relative to Open Data and electronic participation
• Welcome by the Ministry of university students for training in research subjects in agreement with the themes of the partnership
• Placing at the disposal of the Ministry the experience of the University in the areas of research and of synthesis in order to ameliorate the products produced by the Ministry in the context of open data and electronic participation.

Continuing Partnership with Mundiapolis University

There is interest on the part of Mundiapolis University and the GeoSUMR partners in continuing this relationship. There are opportunities for additional projects in Morocco and perhaps in other countries in the MENA region. There are immediate opportunities for projects in the Moroccan cities of Agadir and BenSlimane. Representatives Lguirati Abdelouhab and Hassan Amghar of these cities approached members of the team and indicated interest in having maps developed for their cities. Kirstin Miller visited BenSlimane to determine what type of mappable information is already available. Mundiapolis has the action to follow up with these cities and to see what might be done. As with other GeoSUMR projects, the availability of funding is a major constraint.

AAG and several other GeoSUMR partners have also joined with Mundiapolis University in developing a new project concept for submittal to EoE for the next round of funding. The proposal is entitled “MENA Regional Academic Network of Geospatial Expertise (RANGE) for Urban Resilience and Disaster Management.” The focus of the project is to create learning exchange hubs across the MENA region for sharing geospatial knowledge and experience among institutions, researchers, practitioners, and teachers to improve geospatial technology instruction, research, and use by government entities for urban resilience and disaster management applications.

Future Work in Other Regions

The GeoSUMR partnership is currently exploring opportunities for work in countries other than those in the MENA region. A particular focus is on South America where Ecocity Builders has already developed neighborhood maps for Rio de Janeiro, Medellin and Lima. GeoSUMR recently submitted a project concept for consideration by EoE/AGEDI entitled “GeoSpatial
Technology Solutions for Water Resource Management: Capacity Building for Water Resource Managers.” The proposed application would be in Colombia for the 33 managers of the Corporaciones Autonomas Regionales (CARS). These regional institutions address environmental issues at the regional level. The proposal concept was presented to representatives of the Colombian government and they expressed interest in implementation. However, as with proposed projects in the MENA region funding is the major constraint.

The work in Colombia differs from that in Casablanca in that the proposal is designed to link with other EoE Special Initiatives including Disaster Management, and Water Security.

**Presentation at the 2015 Eye on Earth Summit**

In October 2015 the second Eye on Earth Summit will take place in Abu Dhabi. Part of the event is designed to showcase the projects that were funded in 2013, this will include both the GeoSUMR Casablanca workshop and the Ecocitizen maps of Cairo and Casablanca. The meeting will also provide an opportunity to meet with representatives of other Special Initiative with whom we might want to collaborate. As mentioned previously the most recent GeoSUMR proposal involves more than the CSR Special Initiative.
ANNEX 1
Workshop Agenda

**Monday 13th October: Learning Basics**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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| 9:00 – 9:30 | Introduction to the Workshop program  Presentation of speakers and guests  
Marsha Goldberg - AAG |
| 9:30 – 11:00| Introduction to GPS and mobile GIS  
PathFinder Office: Display, Edit collected data and export data to a GIS  
Moha El Ayachi - TRIMBLE |
| 11:00 – 11:15 | Coffee Break |
| 11:15 – 13:00 | Introduction to GIS (ArcGIS Online Basics)  
Carmelle Terborgh - Esri |
| 13:00 - 14:00 | Lunch |
| 14:00 – 15:00 | Experiences of crowdsourcing in Morocco  
Tarik Nesh-Nash - Mundiapolis University |
| 15:00 – 16:00 | Geoinformation and Strategies for Sustainable Urban Management and Citizen Participation  
Kirstin Miller - Ecocity Builders |
| 16:00 – 17:00 | Panel discussion  
Carmelle Terborgh - Esri  
Kirstin Miller - Ecocity Builders  
Moha El Ayachi - TRIMBLE  
Tarik Nesh-Nash - Mundiapolis University  
Sebastian Moffatt - Consensus Institute |
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<th>Time</th>
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<tr>
<td>9:00-10:00</td>
<td>GIS Technology for 3D modeling in Urban planning</td>
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<td><em>Professor Rafika Hajji</em> - <em>School of Geomatics</em></td>
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<td>10:00-10:15</td>
<td>Coffee Break</td>
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<tr>
<td>10:15-12:00</td>
<td>Understanding Urban Systems Geography, Resource Flows &amp; Geodesign</td>
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<td></td>
<td><em>Carmelle Terborgh</em> – <em>Esri</em></td>
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<td><em>Sebastian Moffatt</em> – <em>Consensus Institute</em></td>
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<td></td>
<td><em>Kirstin Miller</em> – <em>Ecocity Builders</em></td>
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<tr>
<td>12:00-13:00</td>
<td>Lunch</td>
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<tr>
<td>13:15-14:15</td>
<td>Trimble Equipment Setup</td>
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<td><em>Moha El Ayachi</em> – <em>TRIMBLE</em></td>
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<td>14:15-16:15</td>
<td>Practice of field data collection (Mini Bootcamp) on campus</td>
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<td><em>Driven by University Students</em></td>
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<td>16:15-17:15</td>
<td>Data transfer</td>
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<td><em>Driven by university students</em></td>
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<td>17:15-19:00</td>
<td>Optional hands-on practice</td>
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Wednesday 15th October: A Deeper Understanding

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<th>Time</th>
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<tr>
<td>9:00-10:30</td>
<td>Presentation of Ecocitizen maps for Cairo and Casablanca.</td>
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<td>Interactive discussion of capacity building and use of these maps.</td>
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<td><em>Ashoka Finley - Ecocity Builders</em></td>
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<td></td>
<td><em>Students from Casablanca and Cairo</em></td>
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<td>10:30-10:45</td>
<td>Coffee Break</td>
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<tr>
<td>10:45-12:30</td>
<td>The value of imagery</td>
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<td></td>
<td><em>Saleem Zougbi- Global Adviser in ICT in governments</em></td>
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<tr>
<td>12:30-13:30</td>
<td>Lunch</td>
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<tr>
<td>13:30-15:15</td>
<td>Geospatial analysis for urban and territorial management</td>
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<td><em>Fatima Barkan- Ministry of Urbanism and Territorial Management</em></td>
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<td><em>Fatima Nehnahi- Ministry of Urbanism and Territorial Management</em></td>
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<tr>
<td>15:15-17:00</td>
<td>Capacity Building in remote sensing and GIS</td>
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<td><em>African Regional Center for Science and Space Technologies - Abdeljelil Lansari</em></td>
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# Thursday 16th October: Best Practices and Current Activities in GeoSUMR

<table>
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<tr>
<th>Time</th>
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<tbody>
<tr>
<td>10:00-10:15</td>
<td>Welcome coffee</td>
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<td>10:15-10:45</td>
<td>Keynote presentation</td>
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<td><em>President of Mundiapolis University</em></td>
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<td><em>Head Manager of Lydec</em></td>
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<td><em>President of Moroccan Organization for Human Rights</em></td>
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<td>Signing ceremony</td>
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<td><em>Mundiapolis University and the Moroccan Organization for Human Rights</em></td>
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<td><em>Mundiapolis University and Lydec</em></td>
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<tr>
<td>10:45-12:30</td>
<td>Introduction to GeoSUMR and Ecocitizen map (objectives for capacity building and outreach)</td>
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<tr>
<td></td>
<td><em>Marsha Goldberg</em> - AAG: Association of American Geographers</td>
</tr>
<tr>
<td></td>
<td><em>Kirstin Miller</em> - Ecocity Builders</td>
</tr>
<tr>
<td></td>
<td><em>Students from Casablanca and Cairo</em></td>
</tr>
<tr>
<td>12:30-13:30</td>
<td>Available GIS applications for addressing Water issues in the City of Casablanca</td>
</tr>
<tr>
<td></td>
<td><em>Marouan Hakam</em> - Lydec</td>
</tr>
<tr>
<td>13:30-14:30</td>
<td>Lunch</td>
</tr>
<tr>
<td>14:30-16:30</td>
<td>Applications of GPS/GIS to urban issues</td>
</tr>
<tr>
<td></td>
<td><em>Marwa Ahmed</em> - ISDF</td>
</tr>
<tr>
<td></td>
<td><em>Hicham Ezzine</em> - GIS4DS: GIS for Decision Support</td>
</tr>
<tr>
<td></td>
<td><em>Chandan Deuskar</em> - World Bank</td>
</tr>
<tr>
<td></td>
<td><em>Presentation about GIS application on Open Data</em></td>
</tr>
<tr>
<td></td>
<td><em>Digital Economy Department (Ministry of ICT)</em></td>
</tr>
<tr>
<td>16:30-17:20</td>
<td>From cities to the national level and beyond (SIIEM and FALCON projects of the Eye on Disaster Management Special Initiative)</td>
</tr>
<tr>
<td></td>
<td><em>John Wertman</em> - AAG: Association of American Geographers</td>
</tr>
<tr>
<td></td>
<td><em>Hicham Ezzine – GIS4DS: GIS for Decision Support</em></td>
</tr>
</tbody>
</table>
### Friday 17th October: Moving Forward Together: Collaborations and Recommendations

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:00-10:15</td>
<td>Welcome Coffee</td>
</tr>
<tr>
<td>10:15–10:45</td>
<td>Keynote presentation</td>
</tr>
<tr>
<td></td>
<td><em>President of Mundiapolis University</em></td>
</tr>
<tr>
<td></td>
<td><em>Director of Digital Economy Department (Ministry of ICT)</em></td>
</tr>
<tr>
<td>10:45-11:15</td>
<td>Presentation about EoE Summit</td>
</tr>
<tr>
<td></td>
<td><em>Huda Petra Shamayleh – AGEDI: Abu Dhabi Global Environmental Data Initiative</em></td>
</tr>
<tr>
<td>11:15-12:45</td>
<td>Round Table 1: Environmental Open Data in Morocco</td>
</tr>
<tr>
<td></td>
<td><em>Tarik Nesh-Nash - Mundiapolis University</em></td>
</tr>
<tr>
<td></td>
<td><em>Saleem Zougbi- IEEE: Institute of Electrical and Electronics Engineers</em></td>
</tr>
<tr>
<td></td>
<td><em>Chandan Deuskar- World Bank</em></td>
</tr>
<tr>
<td></td>
<td><em>Aditya Agrawal- Socrata</em></td>
</tr>
<tr>
<td></td>
<td><em>Chakri Samia- Digital Economy Department (Ministry of ICT)</em></td>
</tr>
<tr>
<td>13:00-14:00</td>
<td>Lunch</td>
</tr>
<tr>
<td>14:00-17:00</td>
<td>Presentation, Recommendations and General Discussion</td>
</tr>
<tr>
<td></td>
<td><em>Tarik Nesh-Nash - Mundiapolis University</em></td>
</tr>
<tr>
<td></td>
<td><em>Aawatif Hayar - Mundiapolis University</em></td>
</tr>
<tr>
<td>17:30</td>
<td>Closing ceremony</td>
</tr>
</tbody>
</table>
ANNEX 2

List of Participants

- **National Government Agencies:**
  - Ministère Urbanisme
    - Fatima Barkan
    - Latifa Nehnahi
    - Siham Bouraja
    - Loubna FAZAZI IDRISSI
  - Ministry of ICT
    - Samia Chakri
  - Ministry of Environement
    - Hassan Amghar
    - Adraou Imane
  - Informal Settlement Development Facility (ISDF)
    - Marwa Ahmed
  - AGEDI
    - Huda Petra Shamayleh

- **Regional/Local Government Agencies:**
  - Centre Régional d'Investissement du Grand Casablanca
    - IGARRAMEN Zakaria
  - Délégation d'habitat de Marrakech
    - Sahi Zahra
  - Commune urbaine d'Agadir
    - Lguirati Abdelouhab

- **Private Sector:**
  - Lydec
    - Saad Azzaoui
    - Marouan Hakam
  - GIS4DS
    - Hicham Ezzine
    - Samira Fakid
  - Trimble
    - Moha El Ayachi
  - Esri
    - Carmelle Terborgh
  - Socrata
  - Prime GPS Africa
  - Nawal ELAMRAOUI

- **Academia:**
  - Mundiapolis University
    - Tarik Nesh-Nash
    - Aawatif Hayar
    - Zineb Mahrez
    - Etudiants
  - School of Geomatics
    - Rafika Hajji
  - Faculté des Sciences et Techniques Mohammedia (FSTM)
    - Agadi Meryem
  - Cairo University
    - Ahmad Tarek
    - Heba Allah
    - Mohamad Alghandour

- **Nonprofits and Associations:**
  - Ecocity Builders
    - Kirstin Miller
    - Ashoka Finley
  - Association of American Geographers
    - Marsha Goldberg
    - John Wertman
  - OMDH
    - Mohcine Abad
  - IEEE
    - Saleem Zougbi
  - Consensus Institute
    - Sebastian Moffatt

- **International Organizations:**
  - World Bank
    - Chandan Deuskar
  - CRASTE-LF
    - Abdeljalil Lansari
Annex 3
Evaluation Forms

Evaluation Form for Day 1
This survey will help us improve the future quality of our workshops. Thanks for your feedback

Gender
- □ Female
- □ Male

What country/City are you from?


Vous representez le secteur/You represent the sector:

- □ Secteur public
- □ Secteur privé
- □ Société civil
- □ Académique
- □ Autre

Avez vous eu d'autres formations en GIS/GPS/Did you have previous trainings in GPS/GIS?

- □ Yes
- □ No

If Yes, How many?


Do you use it regularly in your job?

- □ Yes
- □ No

Do you work on urban issues or are involved in urban issues?


What portion of the workshop did you attend?

- □ all
Evaluate each of the sessions below in terms of use to you in terms of job requirements

<table>
<thead>
<tr>
<th>Session</th>
<th>very useful</th>
<th>moderately useful</th>
<th>not useful</th>
<th>not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to GPS and mobile GIS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introduction to GIS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crowdsourcing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Geoinformation and Strategies for Sustainable Urban Management and Citizen Participation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

What specifically was useful?


Will you have an opportunity to use the skills taught when you return to your organization? Which skills? If not, why not?


Did the training allow adequate interaction with instructors and other participants?


**Evaluation Form for Day 2**

This survey will help us improve the future quality of our workshops. Thanks for your feedback.

Gender
Female
Male
What country/City are you from?

Vous représentez le secteur/You represent the sector:

- Secteur public
- Secteur privé
- Société civil
- Academique
- Autre

Avez vous eu d'autres formations en GIS/GPS/Did you have previous trainings in GPS/GIS?

- Yes
- No

If Yes, How many?

Do you use it regularly in your job?

- Yes
- No

Do you work on urban issues or are involved in urban issues?

What portion of the workshop did you attend?

- all
- Days 1-3
- Days 4-5

Evaluate each of the sessions below in terms of use to you in terms of job requirements

| GIS Technology for 3D modeling in | very useful(++) | moderately useful(+) | not useful(-) | not applicable(--)
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Topic</td>
<td>very useful(++)</td>
<td>moderately useful(+)</td>
<td>not useful(-)</td>
<td>not applicable(--)</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>----------------</td>
<td>----------------------</td>
<td>---------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>urban planning</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understanding Urban Systems Geography, Resource Flows &amp; Geodesign</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trimble Equipment Setup</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practice of field data collection (Mini Bootcamp) on campus</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data transfer</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Optional hands-on practice</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>What specifically was useful?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Will you have an opportunity to use the skills taught when you return to your organization? Which skills? If not, why not?**

**How useful was the data collection and mapping exercise?**

**How could it be improved?**
Did the training allow adequate interaction with instructors and other participants?

Evaluation Form for Day 3

This survey will help us improve the future quality of our workshops. Thanks for your feedback

Gender

- Female
- Male

What country/City are you from?

Vous representez le secteur/You represent the sector:

- Secteur public
- Secteur privé
- Société civil
- Academique
- Autre

Avez vous eu d'autres formations en GIS/GPS/Did you have previous trainings in GPS/GIS?

- Yes
- No

If Yes, How many?

Do you use it regularly in your job?

- Yes
Do you work on urban issues or are involved in urban issues?

- [ ] Yes
- [ ] No

What portion of the workshop did you attend?

- [ ] All
- [ ] Days 1-3
- [ ] Days 4-5

Evaluate each of the sessions below in terms of use to you in terms of job requirements

<table>
<thead>
<tr>
<th>Session</th>
<th>very useful</th>
<th>moderately useful</th>
<th>not useful</th>
<th>not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentation of EcoCitizen maps for Cairo and Casablanca.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The value of imagery</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Geospatial analysis for urban and territorial management</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

What specifically was useful?

[ ]

Will you have an opportunity to use the skills taught when you return to your organization? Which skills? If not, why not?

[ ]

Did the training allow adequate interaction with instructors and other participants?

[ ]
Would you recommend the workshop to others?

What other topics should be discussed?

**Evaluation Form for Day 4**

This survey will help us improve the future quality of our workshops. Thanks for your feedback

**Gender**

- Female
- Male

**What country/City are you from?**

**Vous representez le secteur/You represent the sector:**

- Secteur public
- Secteur privé
- Société civil
- Academique
- Autre

**Avez vous eu d'autres formations en GIS/GPS/Did you have previous trainings in GPS/GIS?**

- Yes
- No

**If Yes, How many?**

- 

**Do you use it regularly in your job?**

-
Do you work on urban issues or are involved in urban issues?

- Yes
- No

What portion of the workshop did you attend?

- All
- Days 1-3
- Days 4-5

What specifically was useful?

Will you have an opportunity to use the skills taught when you return to your organization?

Which skills? If not, why not?

Did the training allow adequate interaction with instructors and other participants?

Evaluate each of the sessions below in terms of value to you

<table>
<thead>
<tr>
<th>Session</th>
<th>very useful</th>
<th>moderately useful</th>
<th>not useful</th>
<th>not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to GeoSUMR and Ecocitizen map</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Available applications for addressing water issues</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applications of GPS/GIS to Urban</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
very useful | moderately useful | not useful | not applicable
---|---|---|---

**Issues**

From cities to the national level and beyond (SIIEM and FALCON projects of the Eye on Disaster Management Special Initiative)

---

**Would you recommend the workshop to others?**

---

**What other topics should be discussed?**

---

**Evaluation Form for Day 5**

This survey will help us improve the future quality of our workshops. Thanks for your feedback.

**Gender**

- [ ] Female
- [ ] Male

**What country/City are you from?**

---

**Vous representez le secteur/You represent the sector:**

- [ ] Secteur public
- [ ] Secteur privé
- [ ] Société civil
Academique

Autre

Avez-vous eu d'autres formations en GIS/GPS/Did you have previous trainings in GPS/GIS?

- Yes
- No
If Yes, How many?

Do you use it regularly in your job?

- Yes
- No

Do you work on urban issues or are involved in urban issues?

What portion of the workshop did you attend?

- all
- Days 1-3
- Days 4-5

What specifically was useful?

Will you have an opportunity to use the skills taught when you return to your organization? Which skills? If not, why not?

Did the training allow adequate interaction with instructors and other participants?

Evaluate each of the sessions below in terms of value to you
<table>
<thead>
<tr>
<th>Topic</th>
<th>Very Useful</th>
<th>Moderately Useful</th>
<th>Not Useful</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Data Environment in Morocco</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smart Cities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Would you recommend the workshop to others?

What other topics should be discussed?
Annex 4
Evaluation Results Day 1

Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>12</td>
<td>70.6%</td>
</tr>
<tr>
<td>Male</td>
<td>5</td>
<td>29.4%</td>
</tr>
</tbody>
</table>

What country/City are you from?
- Morocco/casablanca
- Morocco
- Oujda
- Maroc
- Casablanca
- casablanca
- Fes
- morroco
- morocco
- Morocoo
- Cairo
- morocco/casablanca

Vous representez le secteur/You represent the sector:

<table>
<thead>
<tr>
<th>Sector</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secteur public</td>
<td>4</td>
<td>23.5%</td>
</tr>
<tr>
<td>Secteur privé</td>
<td>1</td>
<td>5.9%</td>
</tr>
<tr>
<td>Société civil</td>
<td>1</td>
<td>5.9%</td>
</tr>
<tr>
<td>Académique</td>
<td>11</td>
<td>64.7%</td>
</tr>
<tr>
<td>Autre</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>

Avez vous eu d'autres formations en GIS/GPS/Did you have previous trainings in GPS/GIS?

Yes 11 64.7%
If Yes, How many?

- Yes [11]
- No [6]

<table>
<thead>
<tr>
<th>If Yes, How many?</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>9</td>
<td>52.9 %</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0 %</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0 %</td>
</tr>
<tr>
<td>More</td>
<td>1</td>
<td>5.9 %</td>
</tr>
<tr>
<td>All</td>
<td>12</td>
<td>70.6 %</td>
</tr>
</tbody>
</table>

Do you use it regularly in your job?

- Yes [1]
- No [15]

<table>
<thead>
<tr>
<th>Do you use it regularly in your job?</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>1</td>
<td>5.9 %</td>
</tr>
<tr>
<td>No</td>
<td>15</td>
<td>88.2 %</td>
</tr>
</tbody>
</table>

Do you work on urban issues or are involved in urban issues?

- no
- urban issue
- No
- yes
- involved in urban
- urban planner
- Yes
- involved in urban issues

What portion of the workshop did you attend?

<table>
<thead>
<tr>
<th>What portion of the workshop did you attend?</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>12</td>
<td>70.6 %</td>
</tr>
</tbody>
</table>
Introduction to GPS and mobile GIS [Evaluate each of the sessions below in terms of use to you in terms of job requirements ]

very useful: 
moderately useful: 
not useful: 
not applicable:

very useful: 12  70.6 %
moderately useful: 3  17.6 %
not useful: 1  5.9 %
not applicable: 0  0 %

Evaluation Results Day 2

Introduction to GIS [Evaluate each of the sessions below in terms of use to you in terms of job requirements ]

very useful: 
moderately useful: 
not useful: 
not applicable:

very useful: 12  70.6 %
moderately useful: 4  23.5 %
not useful: 0  0 %
not applicable: 0  0 %

Crowdsourcing [Evaluate each of the sessions below in terms of use to you in terms of job requirements ]

very useful: 
moderately useful: 
not useful: 
not applicable:

very useful: 12  70.6 %
moderately useful: 5  29.4 %
not useful: 0  0 %
not applicable: 0  0 %
Geoinformation and Strategies for Sustainable Urban Management and Citizen Participation [Evaluate each of the sessions below in terms of use to you in terms of job requirements ]

What specifically was useful?
• Introduction to GIS
• Introduction to GIS
• introduction to GIS
• Crowdsourcing
• introduction gps
• Geoinformation

Will you have an opportunity to use the skills taught when you return to your organization? Which skills? If not, why not?
• yes municipality SIG Lumiere project
• Yes
• How to share data water network for research?

Did the training allow adequate interaction with instructors and other participants?
• No
• yes
• Maybe
• Yes
Annex 5
Evaluation Results Day 2

Gender

- Female
- Male

<table>
<thead>
<tr>
<th>Gender</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>11</td>
<td>73.3%</td>
</tr>
<tr>
<td>Male</td>
<td>4</td>
<td>26.7%</td>
</tr>
</tbody>
</table>

What country/City are you from?
- Morocco
- Rabat, Morocco
- USA
- Fes
- Cairo
- Casablanca, Morocco
- Casablanca/Morocco

Vous representez le secteur/You represent the sector:

<table>
<thead>
<tr>
<th>Sector</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secteur public</td>
<td>2</td>
<td>13.3%</td>
</tr>
<tr>
<td>Secteur privé</td>
<td>1</td>
<td>6.7%</td>
</tr>
<tr>
<td>Société civil</td>
<td>1</td>
<td>6.7%</td>
</tr>
<tr>
<td>Académique</td>
<td>10</td>
<td>66.7%</td>
</tr>
<tr>
<td>Autre</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>

Avez vous eu d'autres formations en GIS/GPS/Did you have previous trainings in GPS/GIS?

<table>
<thead>
<tr>
<th>Training</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>6</td>
<td>40%</td>
</tr>
<tr>
<td>No</td>
<td>9</td>
<td>60%</td>
</tr>
</tbody>
</table>
If Yes, How many?

- 2 [4] (26.7%)
- 3 [0] (0%)
- 4 [0] (0%)
- More [2] (13.3%)

Do you use it regularly in your job?

- Yes [2] (13.3%)
- No [11] (73.3%)

Do you work on urban issues or are involved in urban issues?

- no
- waste management
- Urban planner
- yes, landscape
- involved in urban issues
- No
- yes
- No !
- Yes
- Yes i study about urbanism
What portion of the workshop did you attend?

- Days 1-3 [2] (53.3%)
- Days 4-5 [1] (13.3%)
- All [8] (6.7%)

GIS Technology for 3D modeling in urban planning [Evaluate each of the sessions below in terms of use to you in terms of job requirements]

- **very useful(++)**: 9 (60%)
- **moderately useful(+)**: 3 (20%)
- **not useful(-)**: 2 (13.3%)
- **not applicable(--)**: 0 (0%)

Understanding Urban Systems Geography, Resource Flows & Geodesign [Evaluate each of the sessions below in terms of use to you in terms of job requirements]

- **very useful(++)**: 12 (80%)
- **moderately useful(+)**: 2 (13.3%)
- **not useful(-)**: 0 (0%)
- **not applicable(--)**: 0 (0%)

Trimble Equipment Setup [Evaluate each of the sessions below in terms of use to you in terms of job requirements]

- **very useful(++)**: 9 (60%)
- **moderately useful(+)**: 4 (26.7%)
- **not useful(-)**: 0 (0%)
- **not applicable(--)**: 0 (0%)
Practice of field data collection (Mini Bootcamp) on campus [Evaluate each of the sessions below in terms of use to you in terms of job requirements]

- **Data transfer**: very useful(++) 11 (73.3%), moderately useful(+) 2 (13.3%), not useful(-) 0 (0%), not applicable(--)
- **Optional hands-on practice**: very useful(++) 11 (73.3%), moderately useful(+) 2 (13.3%), not useful(-) 0 (0%), not applicable(--)
- **What specifically was useful?**: very useful(++) 4 (26.7%), moderately useful(+) 1 (6.7%), not useful(-) 0 (0%), not applicable(--)

---

Sample text:

- Practice of field data collection (Mini Bootcamp) on campus [Evaluate each of the sessions below in terms of use to you in terms of job requirements]
- Data transfer [Evaluate each of the sessions below in terms of use to you in terms of job requirements]
- Optional hands-on practice [Evaluate each of the sessions below in terms of use to you in terms of job requirements]
- What specifically was useful? [Evaluate each of the sessions below in terms of use to you in terms of job requirements]
Will you have an opportunity to use the skills taught when you return to your organization? Which skills? If not, why not?

- Yes ODK setup; pathfinder gis in to arcgis online
- No i don't have the opportunity to use them
- I hope specifically GIS maps, because of its availability of technology
- I don’t think that i can use, that become of cost
- Yes the web maps
- Unfortunately not as i work in an architectural office not and urban planning
- I’m student
- 3D modeling and geodesign, yes, about participative design and crowd sourcing

How useful was the data collection and mapping exercise?

- It's interesting
- Bootcamp, collect data, utilisation of GPS, export data in the website
- Very useful
- It was very useful because we understand how gps device work and how to export the data in map.
- It was great
- It's very important to understand our environment correctly
- Moderately useful
- Very! :)
- It was useful that we applied my of the tools
- Very! :)
- It was useful that we applied my of the tools

How could it be improved?

- It was very good, nothing to improve
- Having more machines
- Each student having a gps/computer
- Awareness citizens
- Through a real exercise in a big area and by including more permanent stations
- I hope further cooperation would help us more
- Need more time to practice after transfer it
- By adding more practice session

Did the training allow adequate interaction with instructors and other participants?

Yes, the training allow us to have interaction with other participation

Yes

It did
Gender

Female: 4 (33.3 %)
Male: 8 (66.7 %)

What country/City are you from?
- Morocco
- coiro
- usa
- Casablanca
- morrakech
- morocco
- agadir morocco

Vous representez le secteur/You represent the sector:

<table>
<thead>
<tr>
<th>Sector</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secteur public</td>
<td>7</td>
<td>58.3 %</td>
</tr>
<tr>
<td>Secteur privé</td>
<td>1</td>
<td>8.3 %</td>
</tr>
<tr>
<td>Société civil</td>
<td>0</td>
<td>0 %</td>
</tr>
<tr>
<td>Académique</td>
<td>4</td>
<td>33.3 %</td>
</tr>
<tr>
<td>Autre</td>
<td>0</td>
<td>0 %</td>
</tr>
</tbody>
</table>

Avez vous eu d'autres formations en GIS/GPS/Did you have previous trainings in GPS/GIS?

| Yes | 8 | 66.7 % |
| No  | 4 | 33.3 % |
If Yes, How many?

Do you use it regularly in your job?

Do you work on urban issues or are involved in urban issues?
- Yes the scope of modeling data for life improvement in urban zones
- Post graduate training deliver a diploma
- yes
- working on urban issues
- post graduate training
- i work in landscop and territoriel development
- Working on urban issues
- yes, in the scope of modeling data for life improvement in urban zone

What portion of the workshop did you attend?

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Days 1-3</td>
<td>2</td>
<td>16.7 %</td>
</tr>
<tr>
<td>Days 4-5</td>
<td>0</td>
<td>0 %</td>
</tr>
<tr>
<td>all</td>
<td>5</td>
<td>41.7 %</td>
</tr>
</tbody>
</table>
Presentation of EcoCitizen maps for Cairo and Casablanca. [Evaluate each of the sessions below in terms of use to you in terms of job requirements ]

The value of imagery [Evaluate each of the sessions below in terms of use to you in terms of job requirements ]

Geospatial analysis for urban and territorial management [Evaluate each of the sessions below in terms of use to you in terms of job requirements ]

What specifically was useful?

- The value of imagery
- fatima's presentation
- geospatial analysis for urban and territorial management
- my first and third subject
- Geospatial analysis for urban and territorial management
- space technology
Will you have an opportunity to use the skills taught when you return to your organization? Which skills? If not, why not?
yes

Did the training allow adequate interaction with instructors and other participants?
yes

Would you recommend the workshop to others?
yes

What other topics should be discussed?
- smart cities
- yes
- New technology web mapping
- smartcities
- new technology
- the role of society civil for devpt.durable
Annex 7
Evaluation Results Day 4

Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>57.7%</td>
<td>42.3%</td>
</tr>
</tbody>
</table>

What country/City are you from?
- Morocco
- El Jadida Morocco
- Washington USA
- Maroc
- Casablanca
- Palestin
- Caire
- Casablanca
- Rabat
- Cairo
- Morocco Casablanca

Vous representez le secteur/You represent the sector:

<table>
<thead>
<tr>
<th>Sector</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Académique</td>
<td>16</td>
<td>61.5%</td>
</tr>
<tr>
<td>Autre [3]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secteur public</td>
<td>3</td>
<td>11.5%</td>
</tr>
<tr>
<td>Secteur privé</td>
<td>2</td>
<td>7.7%</td>
</tr>
<tr>
<td>Société civil</td>
<td>2</td>
<td>7.7%</td>
</tr>
<tr>
<td>Académique</td>
<td>16</td>
<td>61.5%</td>
</tr>
<tr>
<td>Autre [3]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Avez-vous eu d’autres formations en GIS/GPS/Did you have previous trainings in GPS/GIS?

- Yes [16] (61.5%)
- No [10] (38.5%)

If Yes, How many?

- More [4] (15.4%)
- 2 [10] (38.5%)
- 3 [1] (3.8%)
- 4 [0] (0%)

Do you use it regularly in your job?

- Yes [8] (30.8%)
- No [15] (57.7%)

Do you work on urban issues or are involved in urban issues?

- no
- waste management
- involved in urban issues
- urban planner, informal settlement
- No
- yes
- on urban issues
- Bootcamp roche noir, mohemmadia
- No i’m not
What portion of the workshop did you attend?

Days 1-3 [2] 46.2%
Days 4-5 [4] 15.4%
All [12] 46.2%

What specifically was useful?
No answer.

Will you have an opportunity to use the skills taught when you return to your organization? Which skills? If not, why not?
No answer.

Did the training allow adequate interaction with instructors and other participants?
No answer.

Introduction to GeoSUMR and Ecocitizen map [Evaluate each of the sessions below in terms of value to you]

<table>
<thead>
<tr>
<th></th>
<th>Very useful</th>
<th>Moderately useful</th>
<th>Not useful</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Days 1-3</td>
<td>2</td>
<td>10</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Days 4-5</td>
<td>4</td>
<td>7</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

Available applications for addressing water issues [Evaluate each of the sessions below in terms of value to you]

<table>
<thead>
<tr>
<th></th>
<th>Very useful</th>
<th>Moderately useful</th>
<th>Not useful</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Days 1-3</td>
<td>16</td>
<td>7</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Days 4-5</td>
<td>16</td>
<td>7</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>
Applications of GPS/GIS to Urban Issues [Evaluate each of the sessions below in terms of value to you]

From cities to the national level and beyond (SIIEM and FALCON projects of the Eye on Disaster Management Special Initiative) [Evaluate each of the sessions below in terms of value to you]

Would you recommend the workshop to others?
- no
- Yes, of course
- yes
- yes absolutely
- Yes
- oui biensur

What other topics should be discussed?
- smart cities
- waste management/ poverty maps
- need more best practicals for using GIS GPS in urban issues
- Impact of culture and level development on ecocity project
- TIC and Big Data
- fonctionnaire des commune, élus
- More details on distry recovre & risk management to urban planning and GIS/GPS techno staff
- Big data Institutional issues
- what is the next step?
Annex 8
Evaluation Results Day 5

Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td></td>
</tr>
</tbody>
</table>

What country/City are you from?
- Palestine
- morocco rabat
- morocco casablanca
- morocco eljadida
- USA
- marocco
- morocco
- USA washington DC
- casablanca morocco
- USA washington
- marocco casablanca
- Tanger morocco
- cairo

Vous representez le secteur/You represent the sector:

<table>
<thead>
<tr>
<th>Sector</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secteur public</td>
<td>2</td>
<td>7.1 %</td>
</tr>
<tr>
<td>Secteur privé</td>
<td>1</td>
<td>3.6 %</td>
</tr>
<tr>
<td>Société civil</td>
<td>1</td>
<td>3.6 %</td>
</tr>
<tr>
<td>Académique</td>
<td>20</td>
<td>71.4 %</td>
</tr>
<tr>
<td>Autre</td>
<td>4</td>
<td>14.3 %</td>
</tr>
</tbody>
</table>
Avez vous eu d'autres formations en GIS/GPS/Did you have previous trainings in GPS/GIS?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>16</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>57.1%</td>
<td>35.7%</td>
</tr>
</tbody>
</table>

If Yes, How many?

<table>
<thead>
<tr>
<th></th>
<th>2</th>
<th>3</th>
<th>More</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>28.6%</td>
<td>3.6%</td>
<td>10.7%</td>
</tr>
</tbody>
</table>

Do you use it regularly in your job?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>21.4%</td>
<td>60.7%</td>
</tr>
</tbody>
</table>

Do you work on urban issues or are involved in urban issues?

- waste mgmt slum upgrading
- no
- i work on urban issue
- involved in urban issues
- yes
- urbanplanner development in informal areas
- boot camp for work concert
What portion of the workshop did you attend?

- Days 1-3 [1] 50%
- Days 4-5 [4] 14.3%
- All [14] 50%

What specifically was useful?

- It's very important to have smart cities in Egypt and the open data can be not only your environment but for all issues so we need it in Egypt. It's a good job by Morocco; hope we can have it.
- Smart cities and open data environment in Morocco: the booth.
- Smart cities characteristics: how to be smart? How in partart id an Eco-city in our world due to the climate change.
- Presentation by Lydec.
- Round tables.
- Push citizens to be involved in the development of their city.
- The discussion of water-access issues in Morocco.

Open Data Environment in Morocco [Evaluate each of the sessions below in terms of value to you]

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Votes</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very useful</td>
<td>22</td>
<td>78.6%</td>
</tr>
<tr>
<td>Moderately useful</td>
<td>1</td>
<td>3.6%</td>
</tr>
<tr>
<td>Not useful</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Not applicable</td>
<td>2</td>
<td>7.1%</td>
</tr>
</tbody>
</table>
Smart Cities [ Evaluate each of the sessions below in terms of value to you]

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>very useful</td>
<td>21</td>
<td>75 %</td>
</tr>
<tr>
<td>moderately useful</td>
<td>3</td>
<td>10.7 %</td>
</tr>
<tr>
<td>not useful</td>
<td>0</td>
<td>0 %</td>
</tr>
<tr>
<td>not applicable</td>
<td>1</td>
<td>3.6 %</td>
</tr>
</tbody>
</table>

Would you recommend the workshop to others?
- no
- yes
- yes
- yes

What other topics should be discussed?
- culture and level development on ecocity
- smart citie for education
- my be we need to divide this work shop as tow workshoppart 1-GIS,GPS expents to exchage thier best pratical and applications 2- for smartcities and opendata because we need to have the same basic knowledge about GIS,GPS to mone understande about smartcities -the 2day need to have more time to using GPS and transfen data and use GIS online
- finding opportunities
- what the next steps
- more project planing
- example froù a smart city
- fonctionnaire des communs et association
- TIC BIG DATA