



House of Water and Environment

Final Report

**Spreading Water Awareness among Summer Students Camps
Project # CO/RAM/2007/Jun/76**

**Prepared By:
Team Leader: Eng. Khaled Rajab
Team Members: Shatha Salah, and Lana Abu Qtaish**

www.hwe.org.ps

September 20, 2007

Executive Summary

This report is the final milestone deliverable of the “Spreading Water Awareness among Summer Students Camps” project (Project # CO/RAM/2007/Jun/76). The project was implemented by the House of Water and Environment (HWE) through an in-kind contribution from United Nations Educational, Scientific and Cultural Organization (UNESCO) in Ramallah, Palestine.

As set by the project proposal and the contract, the aim of this project is to provide a selected number of summer camps students in the Ramallah area with an understanding of basic water conservation and water management concepts, focusing on major challenges that face the water supply in Palestine. Most importantly, the ultimate goal of this project is to serve as a pilot program that can be implemented and expanded in other areas. This project is designed to serve as a model for an extra curriculum activity that can be implemented by other summer camps, schools and youth organizations.

The program provides an opportunity for participating students to better understand water challenges of the local community and how good practices, management, and technology can help solve these problems. In addition, the program will introduce participated students to future career opportunities in the water and environmental field and direct them to pursue a career in this field.

This report summarizes the progress of the projects’ activities. It also includes recommendations based on the final evaluation of the project by the participated camps. In addition, pictures and a sample of the training materials used in the project is included at the end of the report.

Completed Activities:

As outlined in the project proposal and work plan, the project includes three phases.

Phase I: Planning and Preparation:

Time Frame: This phase started on June 25, 2007 and concluded on July 12, 2007.

Major Activities:

- The project team developed a list of summer camps that will benefit from the project. The list was developed in close coordination with UNESCO and other relevant institutions.
- The list was finalized and a schedule of training activities and a site visit to Ein Samia Pumping Facility was planned.
- A sample training module outline was developed to be used in the activities. The training module included informative and practical components about water issues, water problems and good practices. Appendix III includes the presentation used in the training sessions as part of the training program.

Phase II: Implementation:

Time Frame: This phase started on July 16, 2007 and concluded on August 6, 2007.

- The project team conducted training for the students in the selected summer camps as per scheduled in the action plan.
- The training utilized different tools including simple experiments and visual aids to better deliver the topics in a clearly understandable manner. Topics included: water resources, water conservation, water pollution, simple groundwater principles wastewater treatment and reuse, environmental health, and other related topics. UNESCO representative, Ms. Hala Tannous was invited to attend some of these training sessions. Ms. Tannous attended the training session at Baby World summer camp on July 25, 2007 and looked at the methods and tools used in the training.
- A site visit to Ein Samia Supply Station was organized for the participating camps on July 31, 2007. Around 100 students and teachers participated in this visit. The staff of JWU at the station welcomed the participants and explained the nature of work and the function of the facility.
- In total, around 150 students participated in the training activities in the five camps. This number exceeded the 100 student target set by the proposal.
- The total training hours for the training activities and site visits was about 20 hours which is the target number set by the proposal.

Phase III: Project close down:

Upon the completion of first two phases, the project team contacted the participated camps to get their feed back on the training and site visits. A standard evaluation form was used to capture the comments, suggestions from the camps supervisors/teachers. The

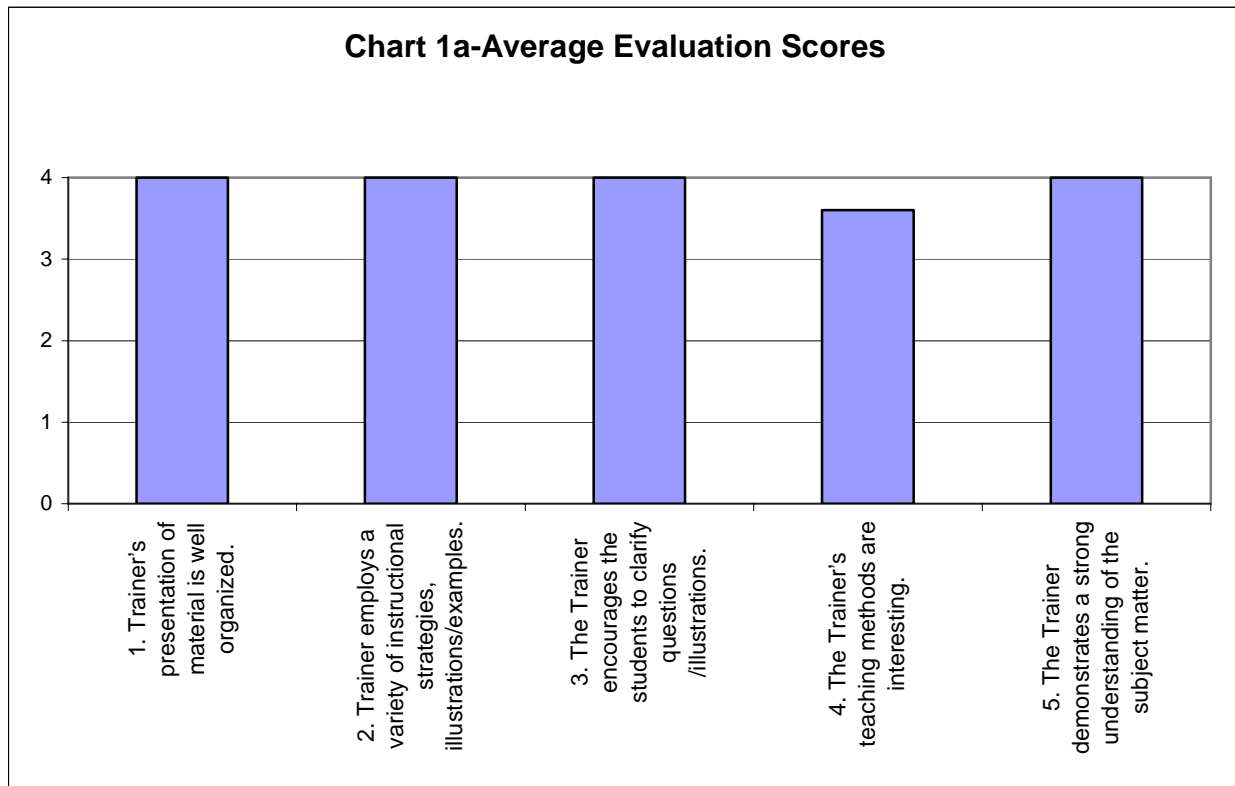
form was then used to develop recommendations for future projects. The evaluation form is included in appendix III

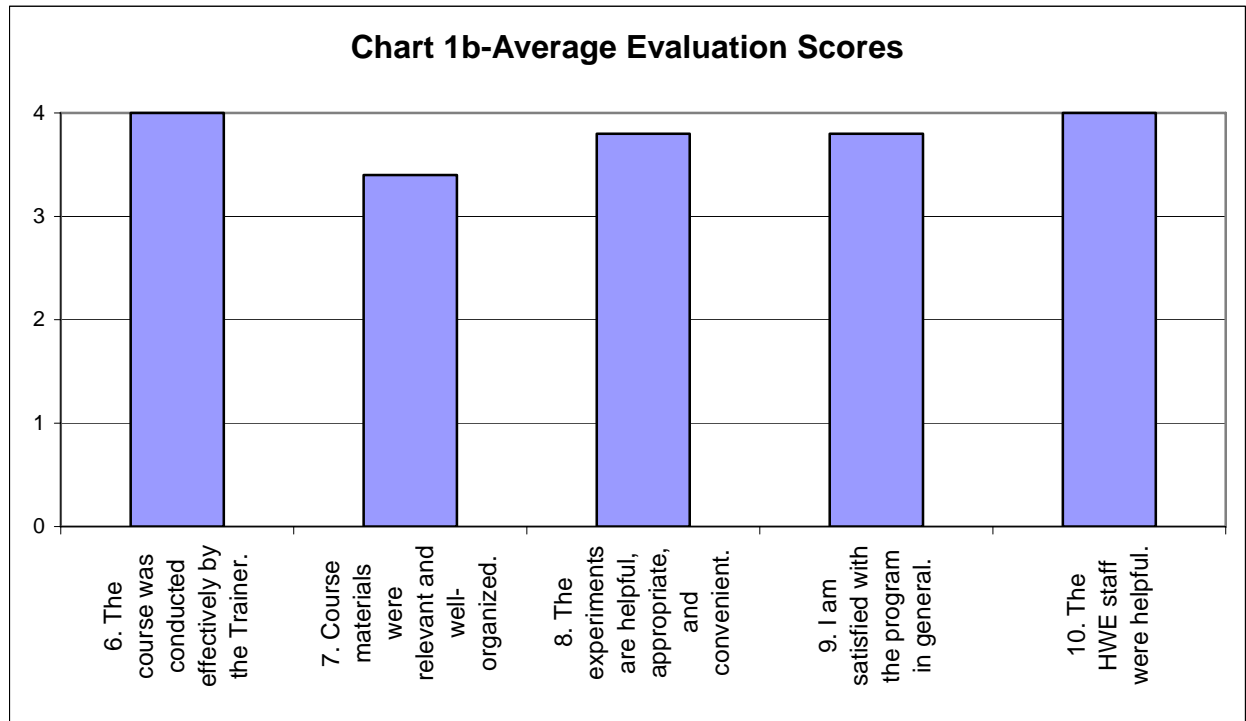
The close down of the project will be concluded by September 20, 2007.

Project Evaluation:

An evaluation form was developed and distributed to supervisors and teachers at the participated camps. The evaluation form includes two parts. The first part consists of ten questions aimed to assess the degree of satisfaction of the respondents on the project, trainers, materials used, methodology used and the performance of the HWE staff in general. The second part includes four questions deigned to give the respondent the opportunity to identify the strengths, weaknesses, and future opportunities of the project along with providing their recommendations.

Respondents had a positive feedback on the project in general. The answers to the first questions reflect a high degree of satisfaction from all the camps about the organization of the activities, trainers' presentations and tools used in the training, and the materials developed for the project. Charts 1a and 1b illustrate this fulfillment.





Following are some selected answers for the questions in the second part.

1- Things I liked the most about this project:

- The variety of training tools such as: experiments, theoretical power point presentations, interactive ice breaking sessions and site visits.
- The suitability of material for kids of ages between 7 and 13
- The character of trainers and their interaction with kids and their teachers.
- The project filled an important gap for campuses in addressing critical issues related to water and environment.
- The method of presenting the topics were interesting and exciting for kids.
- The trainers tried to encourage participants to be engaged in the discussion and to ask questions and express their point views.
- The age of trainers (early 20s) was a key factor in breaking the ice with the kids.
- The HWE staff and in particular the project team leader and the project team was very cooperative with the camps administration.

2- Things I did not like about this project:

- The period of the training was short (around two hours for each camp), and for only one time.
- The project included only one site visit for each camp. It would be better if the visits were more than that.
- The materials were only suitable for ages between 7-13. It is recommended to expand the material to be suitable for more age groups.

- Some of the materials were somewhat advanced for younger ages (7, and 8)
- The involvement of the teachers was limited especially in developing the training materials and training outline.
- Few experiments were conducted. It would be more effective if more experiments were used.

3- Something I would change about this training:

- More variety of training materials that includes more topics and targets more age groups.
- More training sessions and more site visits
- Involve the teachers in the development of materials and train the teachers on conducting the training by themselves.
- Include more camps in Ramallah and other areas especially rural communities.
- Encourage the interaction and networking between different camps by including more than one camp in the training session. This would encourage interaction between the kids, and the teachers from other areas.

4- What would you say to future participants about the project?

and

5- Do you have any other suggestions or comments to help improve similar projects in the future?

The following are the final recommendations that resulted from both the camps evaluation, and the HWE team:

- More similar projects should be encouraged and supported
- Design and initiate a campaign to develop a comprehensive, structural program that target camps and schools as extra curricular activity in related topics
- Train teachers and university students on conducting similar training
- Outreach to organizations and funders such as UNESCO to request more support for similar projects
- Expand the program to target more camps especially in rural and disadvantaged areas.
- The project was successful as a pilot to demonstrate the importance and the creativity. However limited budget and time frame resulted in bounding the impact of the project.
- Establish and support a unit in NGOs such as the HWE specialized in spreading the awareness of water and environmental issues among kids and youth generation.
- Expand the program to include youth clubs, villages and women societies.
- Start a water education magazine that focus on kids and youth.

Final Comments

The project although was limited in the budget and time frame, succeeded in achieving the goal it was designed for. According to the evaluation conducted at the end of the activities, and the discussion of HWE team with participants, the following outcomes were achieved:

- Educate youth to protect and conserve water resources.
- Promote the pursuit of water related and environmental careers
- Raise the student's social awareness
- Stimulate observation, motivate critical thinking, and develop problem-solving skills.
- Expand communication and partnership and encourage team work.
- Develop a training module and materials to be used and distributed in future activities.
- Present a model for similar programs in the future.

The HWE team would like to express its great gratitude and appreciation to UNESCO and its staff for their fund and support through out the phased of the project. We also thank all the camps and the teachers who participated in the training as well as providing positive feedback and recommendations. We hope that the cooperation between the HWE and UNESCO will continue toward better serving the Palestinian community.

Training Outline:

The following table lists the planned activities that will be carried out for each camp:

Activity 1: The network of life- Ice breaking activity
<ul style="list-style-type: none">- Description: This activity aims at breaking the ice between the kids and the trainers. Kids will be encouraged to discuss various topics related to the environment and water. There will be encourage to express their views on the relations between various elements of the environment.- Methodology: The activity starts by organizing the kids in a circle. The trainer will use a thread bundle and will introduce himself as an element of the environment. Then he will throw the bundle to one of the kids asking him to introduce himself and select an environmental element that is related to the element of t trainer. This will continue until a network of thread will be created to represent the network of life.- Purpose: Ice breaking and encouragement for the kids to realize how each element in the environment is linked to the other and how disturbance impacts the whole net.- Time: from 15 to 20 minutes- Needed resources: Thread bundle
Activity 2: Do and Do Not Do
<ul style="list-style-type: none">- Description: This activity will improve the kid’s ability to make the right decisions in regard to water and environmental issues. This activity will concentrate on raising the kids awareness about water conservation and use.- Methodology: A number of issues will be presented to the kids. The kids will then discuss these issues as groups and will express their opinions and thoughts on how to better deal with each issue.- Time: 20 to 25 minutes.
Activity 3: Story Time
<p>Description: A story about the water drop from the rain stage to the use stage will be told to kids.</p> <p>Methodology: The story will be presented using Power Point and with pictures and illustrations to attract the kids.</p> <p>Time: 25-30 minutes.</p> <p>Resources: Laptop and LCD projector</p>
Activity 4: Simple Principles of Water
<p>Description: This activity will introduce the kids to general information and simple principles of water issues including: Water cycle, water Resources in the word and in Palestine, water treatment and quality, and water conservation.</p> <p>Methodology: A presentation of these issues will be prepared and presented using Power Point slide show. The presentation will be prepared is a way that is suitable for the age group.</p> <p>Time: 15 to 20 minutes.</p>

Activity 5: Simple Experiments

Description: This activity will include two experiments related to water. These experiments are: How to manufacture water? And how to purify dirty water?

Purpose: To enhance the kids understanding of water issues through on hand experiments that are safe, fun, and informative.

Time: 20-30 minutes.

Participating Camps

The following table lists the camps participated in the project:

No.	Camp Name	Location	Type	Approximate No of Participants in Project Activities	Ages	Date of Training
1	Al Wehda Camp	Ramallah	Private	30 (boys and girls)	8-12	July 16, 2007
2	Baby World	Al Bireh	Private	30 (boys and girls)	5-12	July 25, 007
3	Ramallah Islamic Club	Ramallah	Private-Community	28 (boys and girls)	8-15	July 28, 2007
4	Charity Society Camp	Al Bireh	Private-Community	30 (girls)	7-14	July 29, 2007
5	Al Amari Refugee Camp	Al Amari	UNRWA	25 (boys and girls)	6-14	July 30, 2007

Appendix I: Pictures

Training Sessions Pictures







Site Visit Pictures





Appendix II
Progress against Work Plan

ID	Task Name	% Work Complete	Start	Finish	Jun 23, '07	Jul 7, '07	Jul 21, '07	Aug 4, '07	Aug 18, '07	Sep 1, '07	Sep 15, '07
1	Contract Signing	100%	Mon 7/2/07	Tue 7/3/07							
2	Planning and Preparation Phase	100%	Sat 6/30/07	Sun 7/15/07							
3	Mobilization of staff and required resources	100%	Sun 7/8/07	Mon 7/9/07							
4	Develop program strategy and action plan	100%	Sat 6/30/07	Fri 7/13/07							
5	Contact potential summer camps	100%	Mon 7/2/07	Wed 7/11/07							
6	Select participating camps and Prepare schedule of activities.	100%	Wed 7/4/07	Wed 7/11/07							
7	Develop a training module and printed materials	100%	Tue 7/3/07	Sun 7/15/07							
8	Submitting the action plan to UNESCO	100%	Thu 7/12/07	Thu 7/12/07							
9	Implementation Phase-Training and Site Visits	100%	Mon 7/16/07	Mon 8/6/07							
10	Training of camp 1-AI Wehda Camp	100%	Mon 7/16/07	Mon 7/16/07							
11	Training of camp 2-YMCA Camp-Replaced by Another Camp	100%	Sat 7/21/07	Sat 7/21/07							
12	Training of Camp 3-Baby World Camp	100%	Wed 7/25/07	Wed 7/25/07							
13	Training of camp 4- Ramallah Islamic Club Camp	100%	Sat 7/28/07	Sat 7/28/07							
14	Training of camp 5-AI Amary Camp	100%	Thu 8/2/07	Thu 8/2/07							
15	Summitting the interim report and printed materials to UNESCO	100%	Mon 8/6/07	Mon 8/6/07							
16	Site visit to Ein Samia Station	100%	Tue 7/31/07	Tue 7/31/07							
17	Project Close Down Phase	100%	Wed 8/15/07	Thu 9/20/07							
18	Writing the final report and recommendations	100%	Wed 8/15/07	Wed 9/19/07							
19	Submitting the final report to UNESCO	100%	Thu 9/20/07	Thu 9/20/07							

Project: UNESCO Water Activities Pro
Date: Tue 9/18/07

Task		Milestone		External Tasks	
Split		Summary		External Milestone	
Progress		Project Summary		Deadline	

Appendix III
Evaluation Form



House of Water and Environment

Spreading Water Awareness among Summer Students Camps
Project # CO/RAM/2007/Jun/76
EVALUATION OF TRAINING

Camp Name:
Trainers names:
Date:
Time:

PART ONE

Instructions: Please answer the following questions using the scale shown below

	Strongly disagree				Strongly agree
1. Trainer's presentation of material is well organized.	↓				↓
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Trainer employs a variety of instructional strategies, illustrations/examples.					
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. The Trainer encourages the students to clarify questions /illustrations.					
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. The Trainer's teaching methods are interesting.					
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. The Trainer demonstrates a strong understanding of the subject matter.					
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. The course was conducted effectively by the Trainer.					
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. Course materials were relevant and well-organized.					
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. The experiments are helpful, appropriate, and convenient.					
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. I am satisfied with the program in general.					
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10. The HWE staff were helpful.					
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

PART TWO

Please write your own comments and suggestions to the questions below:

1- Things I liked the most about this project:

2- Things I did not like about this project:

3- Something I would change about this training:

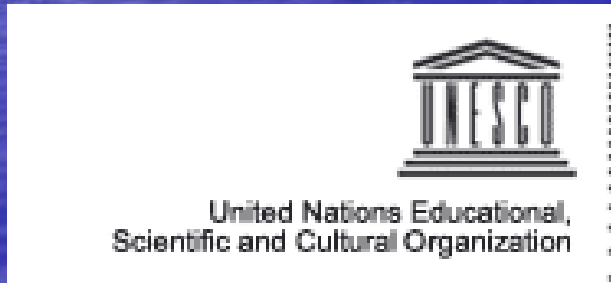
4- What would you say to future participants about the project?

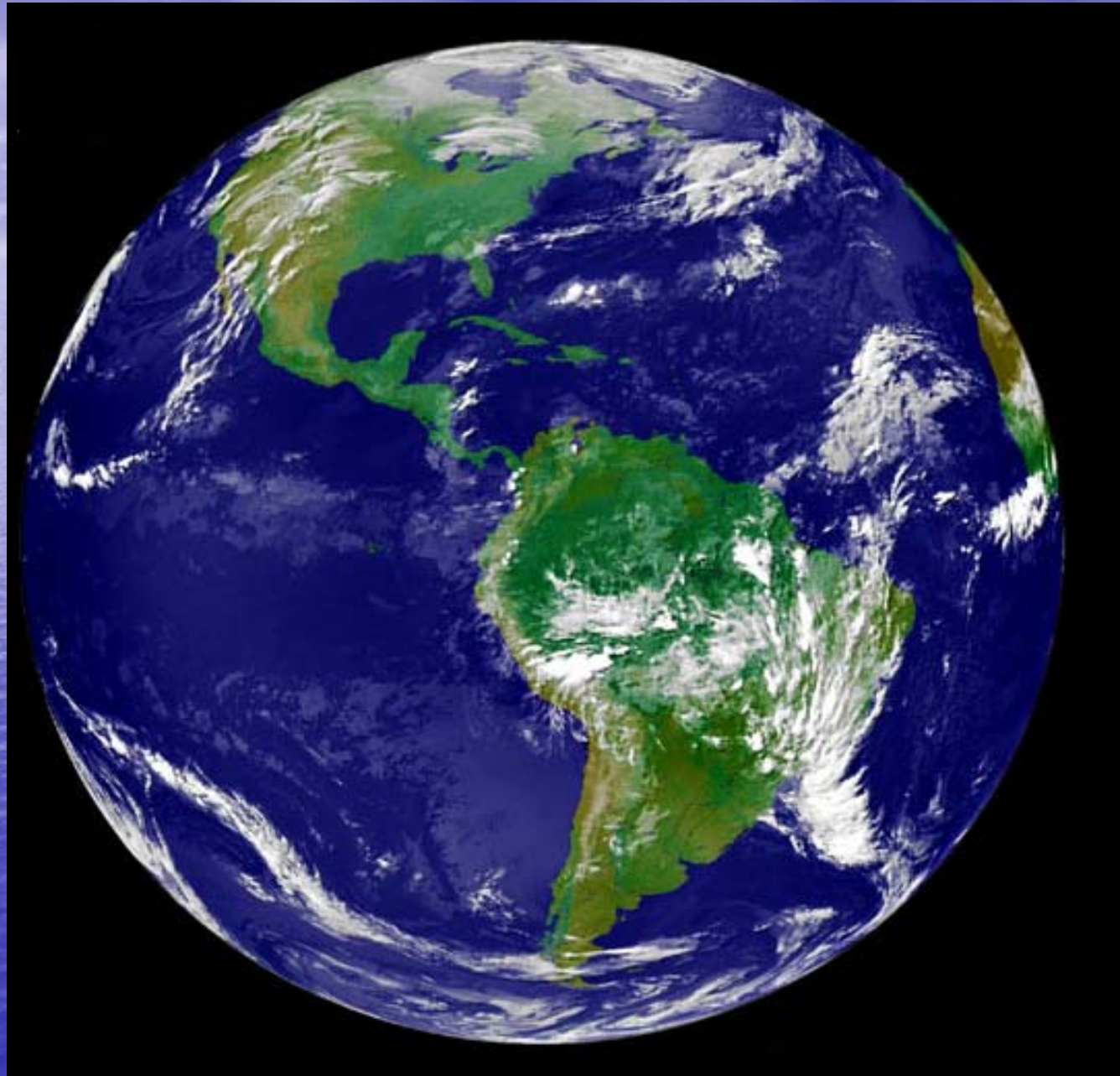
5-Do you have any other suggestions or comments to help improve similar projects in the future?

Appendix IV
Presentation and Sample Materials Used in the
Training Sessions

مشروع توعية طلبة المخيمات الصيفية بقضايا المياه و البيئة

دار المياه والبيئة بالتعاون مع ال UNESCO

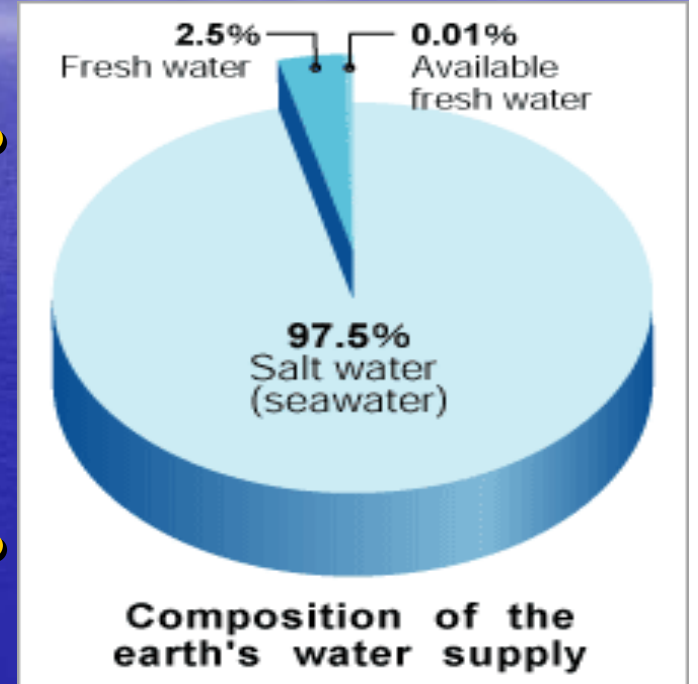




• يوجد جزء من المياه على شكل جبال و
أنهار جليدية و جزء من المياه ملوث.

• ان كمية المياه المتوفرة للشرب قليلة جدا
مقارنة مع كمية المياه الموجودة على
الأرض.

• كمية المياه الموجودة في الأرض ثابتة لا
تتغير منذ ملايين السنين و لكن عدد
السكان هو الذي يتزايد بشكل كبير نتيجة
التطور العلمى و الطبى و الصحى.



Water

Cycle

دورة المياه في الطبيعة:-

• الشمس تعمل على تبخير مياه المحيطات و البحار و الأنهار و البحيرات و المياه الموجودة في التربة.

• يصعد بخار الماء إلى طبقات الجو العليا الباردة و يتحول البخار الموجود على شكل الغاز إلى قطرات ماء نتيجة انخفاض درجة الحرارة فتتجمع المياه مشكلة الغيوم.

• تتساقط الأمطار من الغيوم لتغذي :

– المياه الجوفية

– التربة

– الأنهار

– في البحار و المحيطات لتعود و تتبخر من جديد.



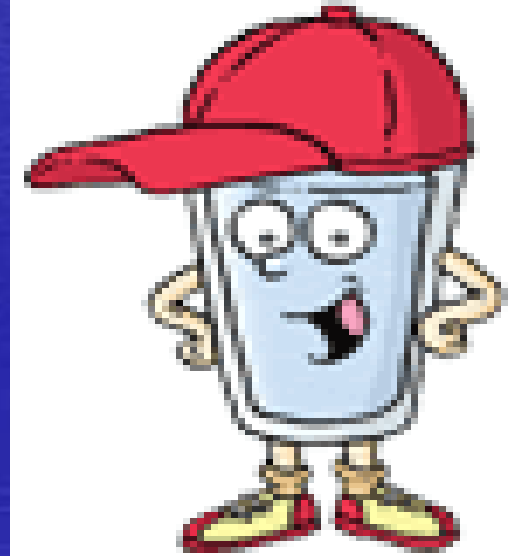
الماء هي
الحياة



مصادر المياه في الطبيعة:

- 1. المصدر الأساسي الذي هو المطر و الذي يغذي الأنهار و الجداول و الينابيع و البحيرات و المياه الجوفية.
- المصادر الطبيعية:
- المياه السطحية و تنقسم الى:
 - مياه الأنهار.
 - مياه البحيرات.
 - مياه الأودية.
- المياه الجوفية:
- المصادر الغير تقليدية :
- تحلية مياه البحر .
- المياه المعالجة: حيث يتم معالجة المياه العادمة.

المياه الجوفية هي مصدر الماء في فلسطين



الأَنْهَار

• يشكل نهر الأردن النهر الأساسي في فلسطين .

• يبلغ طوله 192 كم.

• تبلغ كمية الجريان 1150 مليون م³ و لكن هذا الرقم تغير بسبب ممارسات إسرائيل التعسفية و التلوث.



البحيرات



• بحيرة طبريا:

• مساحتها 160 كم² و
كمية المياه 4 بليون م³



بحيرة طبريا



المياه الجوفية

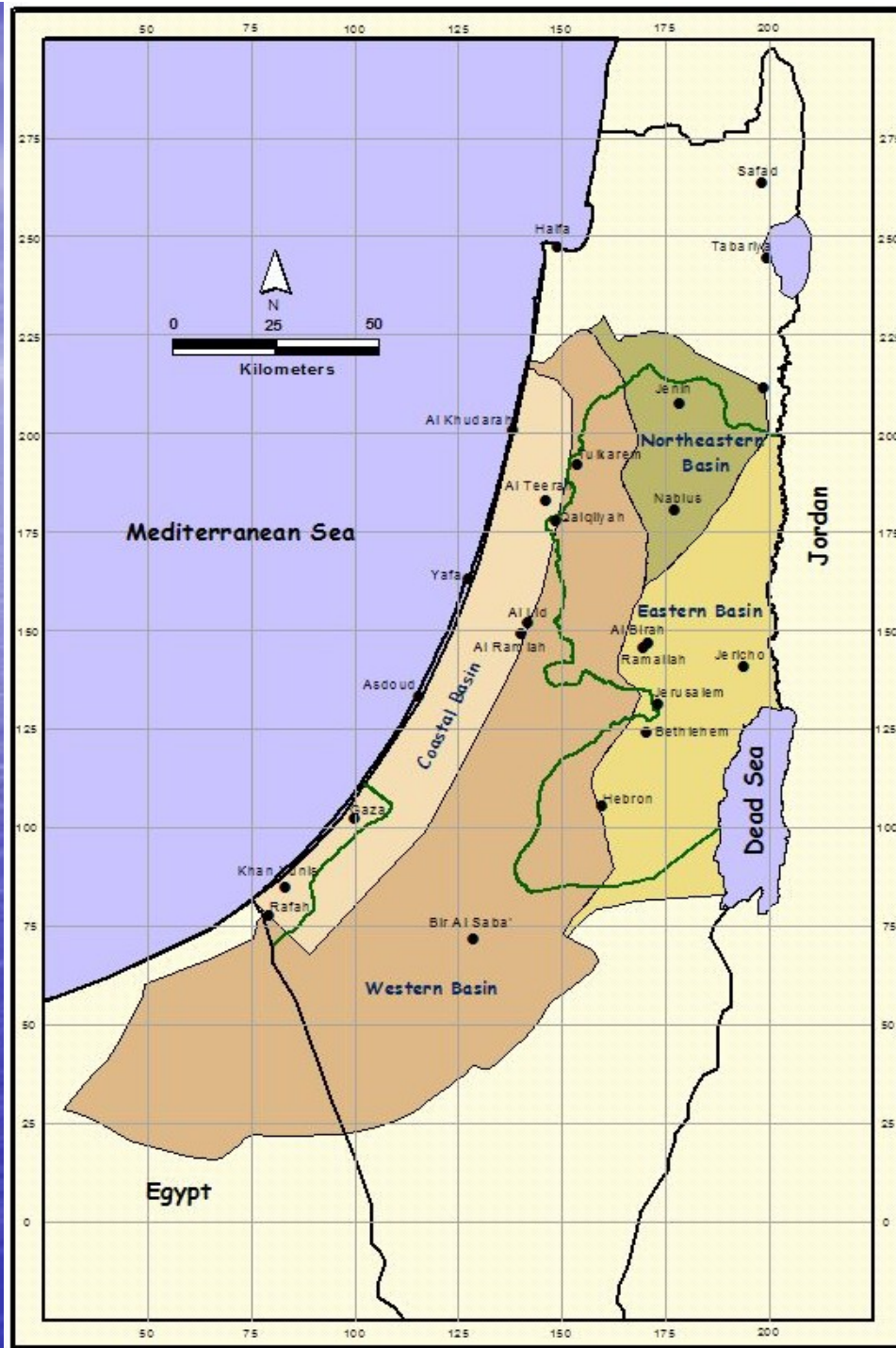
- الخران الشرقى

- الخران الغربى

- الخران الساحلى

- الخران الشمالى الشرقى





على
المياه

طرق ترسيب استهلاك المياه

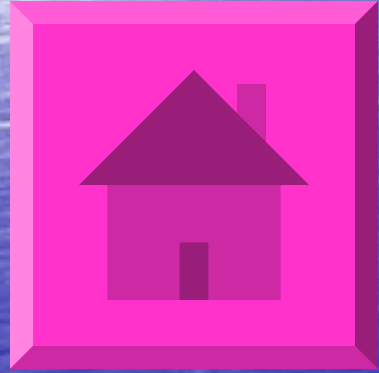
لنحافظ

• خارج المنزل:

- إذا لاحظت وجود سيلان من عداد المياه أبلغ مصلحة المياه.
- استعمل الأساليب الحديثة لسقاية المزروعات.
- اسقى المزروعات في الفترة المسائية للتقليل من التبخر.
- لا تستعمل خرطوم المياه لغسيل السيارات عوضاً عن ذلك استعمل دلو ماء للتنظيف.
- لا تستعمل خرطوم المياه لشطف الساحة حول المنزل. واستعمل المكنسة.
- إذا وجد بئر لماء المطر يجب استخدامه لجميع أعمال التنظيف وسقاية المزروعات.

طرق ترشيد استهلاك المياه

انا منزل بيني , لا احب
هدر الماء



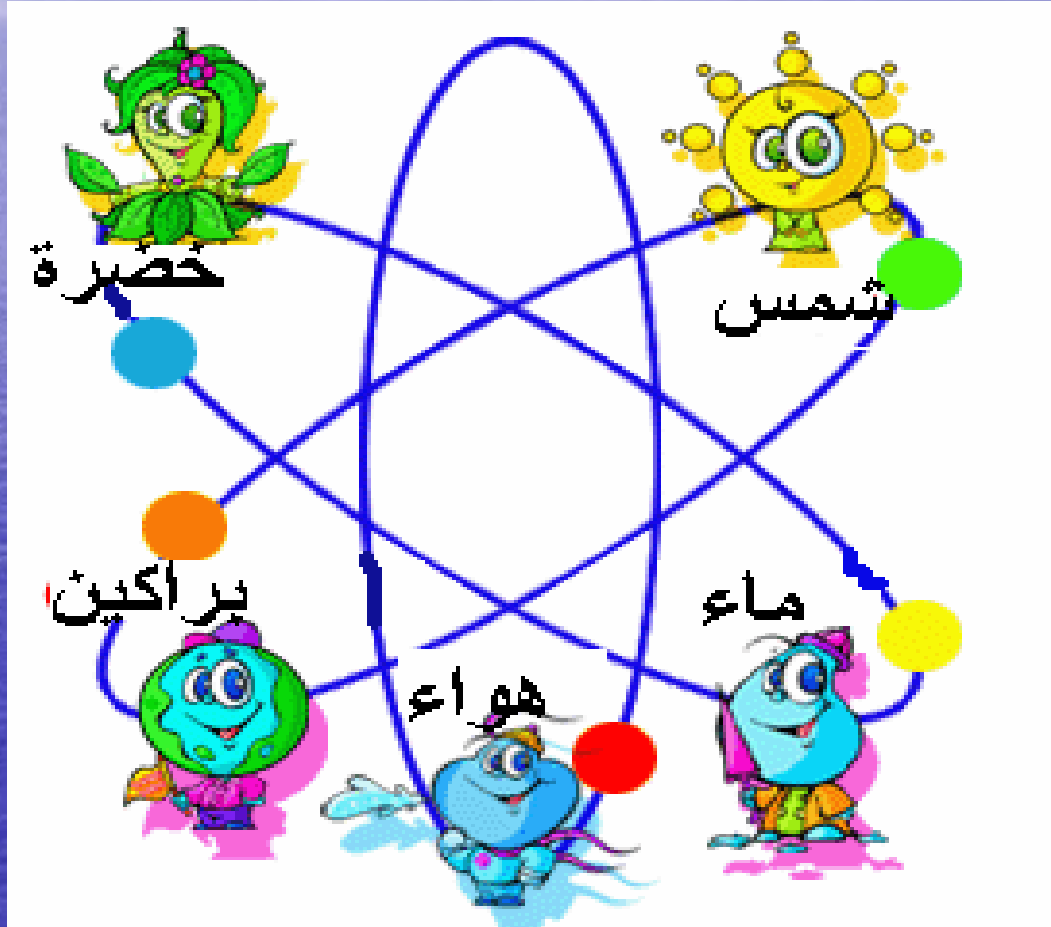
- داخل المنزل:
- صلح الحنفيات التي تتقط.
- قلل فترة الاستحمام.
- استعمل مرش حمام من النوع قليل الجريان.

الدورة الدموية في جسم الإنسان

- تشبه دورة الدمية في جسم الإنسان إلى حد ما دورة المياه على الأرض.
- معدل المياه المستخدمة للشرب للشخص الواحد هو 2.5 لتر وتشمل هذه الكمية المياه الموجودة في الطعام.
- تشكل المياه 60% من جسم الإنسان. جزء من هذه المياه يدور في جسم الإنسان في الدم والليمف.
- معدل المياه التي تخرج من جسم الإنسان للشخص الواحد هو 2.5 لتر.



نشر علم اهتمامكم و نرجو أن تكونوا استفدتكم



تصرفات صحيحة و تصرفات غير صحيحة:

• إذا كنت تلعب مع أصدقائك في الحديقة ورأيت الحنفية تسيل ماء فماذا تفعل؟

1. تلعب بالماء مع أصدقائك.

2. تخبر شخصا كبيرا عن الأمر.

3. تنسى الأمر ولا تخبر أحدا.



• إذا كنت في رحلة مع أهلك وأردت التخلص من النفايات فماذا تفعل؟

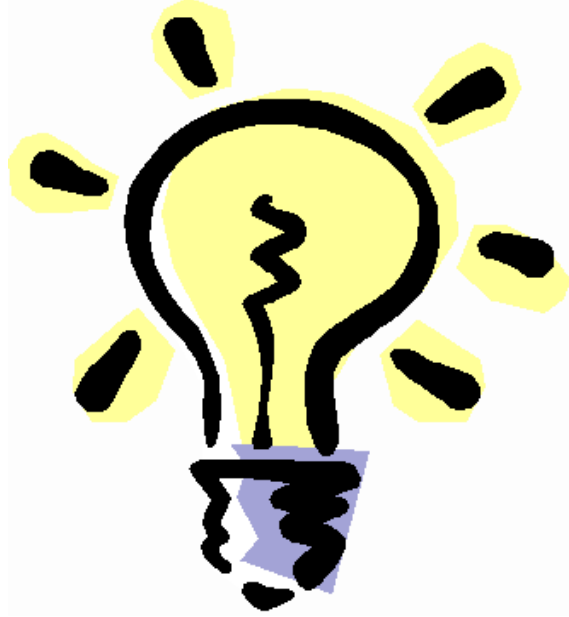
1. ترمي النفايات في نبع المياه لاعتقادك بأنها لن تضر البيئة لأنها ستجري مع المياه.

2. تضع النفايات في كيس ثم ترميها في حاوية.

3. تترك النفايات مكانها ولا تهتم للأمر.

• إذا كنت في الصف وكانت الإنارة مضاءة بالرغم من وجود ضوء كاف من الشمس فماذا تفعل؟

1. تطفئ الضوء.
2. تخبر المعلم لكي يطفئه.
3. تتجاهل الأمر كلياً.



• عندما تأخذ حماماً هل؟

1. تملأ حوض الاستحمام بالماء.
2. تترك المياه تتدفق حتى عند عدم استخدامك لها.
3. تستحم بسرعة وتستخدم كمية قليلة من الماء.



• إذا كنت تسقي النباتات في حديقة المنزل فهل؟

1. تسقيها وقت الظهيرة.
2. تسقيها في الماء باستخدام دلو الماء.
3. لا تسقيها أبدا.

• عند غسلك للسيارة مع أبيك ماذا تفعل؟

1. تغسل السيارة بخرطوم الماء وتستخدم الكثير من الماء.
2. تغسل السيارة باستخدام دلو الماء لتقليل من كمية الماء المستخدم.

