

# MULTAQANA

## A FORUM FOR EDUCATORS OF SUSTAINABILITY



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### Welcome to the latest edition of Multakana! June 2016.

This quarter of the year has run by very fast with a lot of interesting and exciting activities that kept all of us on our heels. However before we savour the contents of our newsletter, the editorial team of the Sustainable School Initiative (SSI) wishes to thank all those who in one way or the other have joined us in the pursuit of SUSTAINABILITY. Our participating schools, students, teachers, partners and sponsors, we could not have gone this far without your support and participation. Keep on doing what you love doing to make the world a sustainable place.

Looking back from where we all started in 2009, it is overwhelming how far we have gone. The increase in the number of those participating from government and private schools, both teachers & students, in the SSI programme is outstanding.

The involvement of school management, teachers, and students in sustainability issues is remarkable not leaving out their ideas and creativity in innovation techniques. **21,965** students were reached out to through **284** field trips, Over **300** projects were undertaken by Our schools Eco Clubs, students travelling from shared transport increased from **73%** to **91%**, use of native plants for greening, use of renewable energy, use of energy efficient equipment, reuse of grey water increased in schools. On average, carbon emission from schools decreased from **87.5** tonnes to **81.2** tonnes.

In this edition we present to you the most important activities and achievements for this quarter. These include reports on the 3<sup>rd</sup> Eco summit, Sustainable Schools Excellence Award Ceremony, Energy Challenge, SSI schools stories and our resource material for your best interest.

It can only get better! Together we can make the world more sustainable and more environmentally friendly.

Without letting the cat out of the bag, we will leave you to enjoy the contents of this edition. Do remember to share it with as many people as you can to help spread the good work of our initiative as this will also assist us to realize the importance of environmental education in the field of sustainable development.

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**Environment Agency - Abu Dhabi**

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## Schools' most prominent sustainability practices 2015-2016

- **55%** of all registered schools compost their organic waste
- Over **82%** of registered schools recycle their paper, plastic and metal waste
- **70%** of registered schools undertake partial recycling of E-waste
- **65%** of registered schools reuse or recycle their white and grey waste water
- **59%** of registered schools use energy efficient equipment and technologies
- **15%** of registered schools have initiated the use of renewable energy
- On average, **91%** of all students in SSI schools use shared transport.
- **82%** of schools have started growing native plants for enhancing the green area in their schools
- **95%** of all registered schools have reduced their water use to varying degree
- **89%** of registered schools have reduced their bottled water usage

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### 3rd ECO CLUB SUMMIT

### THEME: EXPERIENCE, EXPERIMENT AND EXCEL AT SUSTAINABILITY ACTIONS

The long anticipated 3rd edition of the Eco Club summit hosted by the Environmental Agency – Abu Dhabi's Sustainable Schools Initiative (SSI) under the auspices of the Executive Director, Environmental Information, Science and Outreach Management, Mr Ahmed Baharoon, finally arrived amidst a great deal of excitement. This year's Eco Club Summit was held on the 18th -19th of May 2016 in Abu Dhabi under the theme, "**Experience, Experiment, and Excel at Sustainability Actions**"

The Eco Summit aimed at empowering, sensitising schools, teachers and their students to make positive environmental changes in their schools for a greater sustainability which will also impact on the community as a whole. The summit also aims at creating a platform for schools in the SSI programme to network, engage with one another, discuss their projects and experiences with the SSI and share ideas of sustainability to make their schools and the world more environmentally friendly.

The attendance was overwhelming as over 240 students, 140 teachers from 120 schools in and around the emirate of Abu Dhabi were present at this year's summit. Apart from the students and teachers who participated in this year's summit, we also had educational and environmental experts from within and outside of the UAE. Some of those present were Ibtihaj Saleh, from Centre for Educational Research and Development - Lebanon, Ms. Nicola Dixonm from Links Programme - UK, Dr. Reda Al Qassar and Ms. Reem El-Far from Queen Rania Teacher Academy – Jordan.

There were 108 presentations given by schools that discussed creative and innovative projects addressing environmental issues, these projects were implemented in the school and the surrounding communities as part of the Eco Club.

Moreover, there were 6 major workshops conducted: Water Workshop, Saker Falcon Conservation Workshop, Education & Sustainability, Renewable Energy Workshop, GIS Workshop and Music Workshop. In these workshops students were asked to cooperate and work together in order to gain valuable skills and ideas. The objectives of the workshops were to educate students about serious environmental issues; they were lectured about how humans can impact Mother Nature and eco systems negatively and the importance of conservation of species such as Saker Falcon.

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### FEEDBACK ANALYSIS FROM THE ECO SUMMIT:

- 88% of participating students showed interest to attend the 2017 Eco Summit
- 56 % of participating students got new ideas , learnt new skills , become more confident & made new friends.
- 81% of participating students rated the Eco Summit on brilliant level
- Over 73% of SSI Eco clubs projects outcome is measurable



### SAMPLE OF INSPIRING PROJECTS INITIATED BY THE SSI STUDENTS:

- Counting Ecological footprints.
- Battery recycling projects.
- Increase green area.
- Install Solar panels to farm.
- Conserve water by fixing broken water tanks, pipes and install hydroponics systems in farms.
- Awareness to families about sustainable gardens.
- Sensitised camel's owners on the impacts of over grazing.



To know more about the summit ([click here](#))

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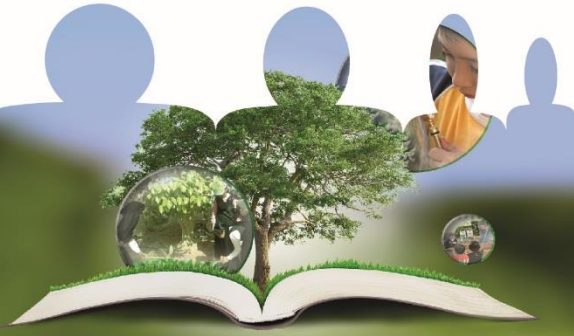
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## 3rd ECO CLUB SUMMIT Photos



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## Sustainable Schools Excellence Award Ceremony 2016

On May 10th 2016 the Environmental Agency - Abu Dhabi, under the Sustainable Schools Initiative came together to award the achievements and acknowledge the hard work of all schools registered in the Initiative in bringing about a more sustainable environment.

Every school under this initiative had worked very hard to improve environmental education and their efforts in undertaking sustainable activities in their schools have paid off. A total of 24 private and governments schools were awarded for their tremendous effort in bringing about sustainability in our schools as well as the community.

These awards were characterised under different categories amongst private and government schools.

**Green School Audit:** This category enables schools to set up their own tools or strategies to help them assess their own environmental impact and ways of enhancing a more sustainable use of resources, which include water, energy, land, air quality and waste. Only schools that have successfully gone through this process were considered for the nomination.

**Best Environmental Educator:** These awards were given to those schools that sent their teachers for training and see to it that sustainability concepts are being integrated in their day to day teaching across different subjects

**Best Outdoor Education:** Learning by doing is the easiest and most practical way to instill and impact knowledge on the learners. Thus field trip encourages experimental learning because it is hand on.

**Best Community Outreach:** These Awards were given in recognition to the efforts made by the students to reach the community and make a positive change in their environment.

**Best Lead School:** These awards were given to the schools that adopted sustainability principles and made them part and parcel of their daily practices. The new challenge they faced is that they took several new schools under their wing and guided them to become more sustainable

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### SUSTAINABLE SCHOOLS INITIATIVE WINNERS STORIES

The schools of our initiative managed to balance between their educational priorities and their hope to have a sustainable environment. How did they manage to achieve this harmony and what were their projects that helped them be more sustainable? What have they learnt and gained from their experiences?

The following pages include the SSI participants' success stories based on the categories they excelled at (Lead Schools, Green Audit, Community Outreach, Environmental Educators, Outdoor Education).

#### Best Green School Audi Category

##### First Position, Government Schools: Al Khatam School

The Green School Audit programme for Al Khatam School exceeded the expected audit requirements by reaching out to the community around the school for public awareness. They have a variety of plans and programmes that advocate for a more sustainable school, which qualified them to be in the best green audit category.

The students created a campaign to reduce consumption of bottled water and increase awareness among students and teachers. Moreover, this campaign encouraged the recycling of leftover bottled water for irrigation purposes. This resulted in an impressive reduction of bottled water consumption by over 61%

The school also reduced their *per capita* waste by taking concerted steps, they compost all their food waste and ensure that their Paper, Plastic, Metal waste is segregated and sent to a contracted company for recycling.

They achieved a major improvement in the school energy consumption. Although they have LED light bulbs in their building and their *per capita per day* consumption is very close to the required standards by the Environment Agency – Abu Dhabi, they organised an energy saving competition between the classes. This taught the school community the good habit of switching things off when they are not in use and led to a 5% cut in energy consumption.

For their air audit, students of Al Khatam school made a plan to decrease CO2 emissions; it aimed to minimise the number of vehicles for transportation by encouraging the use of shared transportation. According to the 2016 audit they increased the percentage of students and teachers using shared transportation to 98.4% Al Khatam School also managed to increase their green area by 10% with no use of pesticides or herbicides. Also the school does not use manufactured fertilisers; it only uses organic fertilisers for the plant species. Teacher & students of this school have a clear plan for the next academic year and they will start a new journey toward sustainability by taking new schools under their wing and guiding them to become more sustainable.

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## SUSTAINABLE SCHOOLS INITIATIVE WINNERS STORIES

### Second position, Government Schools Omamah bint Al Harith School

Omamah bint Al Harith School carried out the audit data collection efficiently by gathering data during different times. As a result of continuous school activities concerning environmental friendly awareness, the data collection has gradually improved compared to previous years.

For their water audit they started an awareness campaign drive within the school and managed to reduce their water bottle use from 275 bottles to 172 bottles and the water left over from bottles was used for planting and to improving the green areas within the school, while the water consumption went down they also managed to increase the shared transportation from 84% to 86%.

Between 2014-2016, Omamah bint Al Harith School has increased its green area by 11.34% as well as the number and diversity of local plants by more than 40%. It should be highlighted that Omamah bint Al Harith School does not use pesticides or chemical fertilisers but only organic fertilisers.

The teachers of this school worked very hard to ensure the audit was integrated into the school curriculum and was considered as a part of the students daily routine rather than as an extra-curricular activity.



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### SUSTAINABLE SCHOOLS INITIATIVE WINNERS STORIES

#### First Position, Private Schools: New Indian Model School, Al Ain

The New Indian Model School (NIMS) have shown good results in their resource usage since they began doing the audits few years ago. They completed all possible tasks given in the Green School Audit (GSA) Manual for the year 2015-2016 successfully and also provided complete evidence with regards to all the reports.

NIMS have always sincerely submitted their reports and this year was no different. The school extended the SS Integration with 35 teachers over 5 subjects and involved the students, parents and staff in various tasks effectively.

The students were involved in many tasks including data collection and calculations which is ideal. The school had an audit plan for the entire year sketched out prior to carrying out the audits, which helped them in doing the tasks in a better and efficient manner.



#### Second position, Private Schools: The Philippines Global School

The Philippines Global School (TPGS) won this award due to their student centric approach in carrying out the audits. The students put a good amount of effort and completed the Audit tasks.

The TPGS students formed groups for GSA and Eco Clubs and worked together for various tasks. The Audit group was also involved in creating an inventory of all the energy consuming devices in the school and has set up posters across the school to reduce the consumption.

TPGS also participated in various environmental activities through their Eco Club and undertook various field trips. One of the interesting Eco Club monthly activities is students of one class collecting trash from the school grounds and segregating it.



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### Sustainable schools success stories

#### Community Outreach Category:

##### First position, Government Schools: Umm al-Quwain School

Umm al-Quwain School chose a critical issue around the school community to solve, which is the increasing number of Crow birds in the area. They were aware of the harmful environmental and health impacts of these birds therefore they tried to minimise their numbers. For this external project, which was done over a period of 2 years, the activities to solve the problem included cleaning campaigns inside, outside the school and public places such as beaches. Meeting and lectures were done for the students' parents in order to increase the awareness about the issue. Another remarkable step they have done was cooperating with many entities in order to solve the problem like UAQ municipality, public work department, other schools and Civil Defense. They tried eliminating as many crows as possible using pesticides. According to the school report, the estimation of eliminated crows is 35%

The internal project of Umm al-Quwain School aimed to recycle grey water and food leftovers in order to use them for other purposes. Food leftovers were used as fodder for poultry and as fertiliser for plants. The grey water was used to make a pond and to irrigate plants.

##### Second position, Government Schools: Al Foah School

Al Foah School Eco Club had an important role to play in achieving environmental friendly goals in the school and surrounding communities. The internal projects for the school focused on raising awareness amongst teachers, students and school staff regarding conserving natural resources and segregating waste. One of the internal projects was recycling food waste using a special machine to compost food to create organic fertilisers from food waste.

The teacher in this school combined school activities undertaken as part of their Eco Club with school subjects such as English studies, science & mathematics.

In addition to the internal projects, Al Foah School had an innovative external project; the students of the school reached out to the community of farm owners around Al Foah area to educate them about the importance of energy sources. The students convinced the owners to install solar panels in 5 farms in order to avoid using non-sustainable energy sources. All of this achievement was done over a two year period.

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### Sustainable schools success stories

#### Third position, Government Schools: AL Nukbah School

Al Nukbah School achieved an extraordinary performance in both external and internal Eco-club projects. The process of proceeding with the projects started with analysing the problem followed by gathering data and information to assess the scale of the problem.

For instance, the internal project focused on water consumption. They realised, after conducting the water audit, that most people are using bottled water and that they leave the bottled unfinished. As a result they decided to not only calculate the number of bottles but also the left over quantity of water every day.

In response to their findings and to resolve the issue, the school management stopped the use of bottled water and instead installed a new sustainable water fountain. In addition, they started awareness campaigns for the school community.

The external project, which lasted for 3 years, employed smart strategic planning as it targeted a regional issue. The school aimed to raise awareness among surrounding communities by encouraging them to buy locally abundant fish species and avoid species under threat from overfishing.

They did this by cooperating with Al Marfa Fishers Cooperation and the Environmental Agency – Abu Dhabi. They organised an awareness campaign that focused on fish markets and consumers buying fish there. They distributed posters that highlighted the most and least abundant fish species in the UAE and carried out a survey that assessed the knowledge of people regarding fish species and their issues. The posters were hung in all fish markets in Al Marfa city. The difference between the survey results from 2015 and 2016 was notable; people in 2016 became more aware of the overfishing issues by 20% compared to 2014.

The Eco Club students of AL Nukbah School learned many good environmental habits that will stay with them for life. This was partly because the school teacher linked the theory part about environmental issue in the curriculum with a real action to save our environment



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### Sustainable schools success stories

#### First position, Private Schools:

Global school in Al Ain have showed impressive Eco Club contributions that led them to get the title of best Eco Club. As the number of participants in the club have increased 30% since 2014. The external project was highly ingenious; it focused on waste management, specifically creating a bio-fuel from used cooking oil that can be used for transportation. This has the added benefit of reducing clogging in the drainage system as well as protecting the environment. The project proceeded with cooperation from the local municipal company to collect waste cooking oil from residences as well as students from the school. The bio-fuel created is successfully used for the school buses. Moreover, the project is still on-going and they are in contact with third parties for oil collection in the school refinery station.

The target for this project was the school community and students' parents. In order to reach the targeted audience, campaigns were created to raise the awareness. For the internal project, the Global English School started a campaign for waste reduction. The campaign included a competition between students, which was called "Waste Free Snacks & Lunch Contest", they also distributed surveys and posters to spread awareness in the school. As part of this project students were asked and encouraged to participate in recycling paper and segregating waste. At the end of this project a notable difference was found regarding generation of waste, due to the incentives students were urged to adopt more sustainable practices and are more aware of the consequences of waste.



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### Sustainable schools success stories

#### Second position, Private Schools: Al Itihad School - Al Ain

The internal and external projects of Al Itihad School focused on irrigation and agriculture. Expanding the green area in the school was a big achievement as students planted different species in the school garden, harvested and sold them for the school staff. The school provided some funding for the Eco Club and bought 16 sorted trash bins not only that but they also were concerned about educating students how to sort waste. The school have noticed a significant difference in water and electricity bills after the club activities. The electricity bill has been reduced to 50.31% and the water bill reduced to 13.8% after the all the campaigns and workshops.

Al Itihad School organised an external project that deals with one of the most important issues in the UAE, which is random irrigation. The school chose 3 farms that belong to one of the students to implement modern and more efficient irrigation practices.

They observed that water tanks were leaking and that caused water loss, therefore they asked the farm owner to maintain or replace these water tanks to save water. Students visited the farm and brought pipes for irrigation also they gave a plan for irrigating hours in the morning and at night to prevent evaporation of water. In addition, students tried to spread awareness of sustainable agriculture practices by suggesting using organic fertilisers instead of the manufactured ones.

Despite the difficulties that the school faced, such as managing extra time for the Eco Club as well as difficulties in meeting with authorities and gaining permissions, the school still managed to complete both internal and external projects successfully.



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### Sustainable schools success stories

#### Third position, Private Schools: Sunrise School

Sunrise School Eco Club did various activities for external and internal projects. The school internal project was about waste segregation in classrooms. They aimed to raise awareness among students about best waste management practices. This was achieved by spreading 3 baskets in all classrooms, one for food waste, one for plastic and one for paper. The total quantity of food waste was then moved to the school compost pit and converted into manure for the school garden; Also they managed to recycle 100% of their paper & plastic waste.

The school's first external project focused on spreading awareness among public about saving water and electricity, this was done by visiting houses and distributing pamphlets. Another environmental issue that was on the spot light is overfishing, the school students made a campaign to spread the awareness about this issue and visiting fish markets also informing their parents. 200 people decided to support the cause; they stopped buying hamour, sherri & other endangered type of fish.

#### Environmental Educator Category

#### First position, Government Schools: Al Refa School

Al Refa School participated in the Sustainable Schools Initiative for the first time this year. However, they presented a remarkable contribution despite their remote geographical school location. Teachers attended seven workshops and training programmes organised by EAD. An online training programme was also provided for teachers in order to have more convenient method to overcome transportation difficulties. The trainings provided the concepts of recycling, biodiversity waste management, water conservation and renewable energy. Additionally, more than 83% of teachers in the school were trained in both languages Arabic and English by teachers who attended the main workshops. Teachers adapted knowledge they gained from the trainings into the school curriculum for different subjects such as mathematics, science, English and Arabic. Primary teachers focused on understanding the importance and concept of recycling waste, and students were asked to read simple materials about recycling and its process. They were also given an activity where they sorted and classified recyclable waste. In addition, teachers explained to students the importance of conserving the environment and how recycling is helping to do so. Intermediate teachers concentrated on the issue of Climate Change, where students were lectured about environmental topics such as Greenhouse Gases and its contribution to Climate Change as well as ecological footprint and how it could be reduced. During the lessons students were divided into groups and were asked to write about the causes, signs and impacts of Climate Change. This helped in making 85% of the students from school more environmentally aware and therefore made them more responsible toward their environmental related behaviours.

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### Sustainable schools success stories

#### Second position, Government Schools: Al Khatem School

Al Khatem School had 12 teachers participating in the training conducted in 16 workshops. These workshops as well as electronic training programmes were prepared by EAD and other authorities. The school faced difficulties because of its remote location and lack of suitable timings. However, it succeeded in attending these workshops and in sharing the knowledge with 56 other teachers. These teachers created programmes that connect environmental concepts with the students' school curriculum. The environmental concepts include: E-waste, electricity and alternative energy, climate change, system thinking and GIS. Al Khatem School did a great job in the System Thinking workshop, they introduced and explained the approach to students, this system helps students understand the complicated nature of the environment and its interactions. Also it motivated them to think about the relationships of different parts or aspects and the integration of these aspects into a coherent body of practice, as well as allowing the whole to surpass the sum of the parts.

Other great workshops were done, Geographical Information System is one of them, this workshop aimed to include environmental concepts into classrooms by using EAD's Geospatial portal, it is an excellent and interesting source of data that teachers used to teach students about environmental issues. The school has been doing the ToT component in the Sustainable Schools Initiative for three years and there is a clear progress each year. According to the school report, in the year 2013-2014 the school started involving the training programme material for only 4 subjects; however in the year 2015-2016 the number of subjects increased to 14. The training of the trainer's components spread awareness among 256 students in all grades compared to only 100 students in 2013-2014.

#### First position, Private schools: Al Rayan School

The school participated in 7 workshops organised by EAD that involved 12 teachers and shared with a further 122 teachers. These teachers integrated parts of the workshop in the school curriculum, they reached out to 850 students from KG to 10th grade and these trainings were included in science and social studies subjects. Primary teachers incorporated the workshops with environmental related activities for the students; the activities involved waste and understanding the effect of water pollution.

For the waste activity students were asked to fill a sheet quantifying how much waste do their families generate and where does this waste end up, from that students were asked to come up with solutions and were introduced to the concept of reducing, reusing and recycling. The water activity was done by engaging students in doing an experiment where each student added a drop of ink to a cup of water, students were then asked if they would swim in this water or drink it. This was important to show students that they should not be water polluters even in small scales.

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### Sustainable schools success stories

#### Second position, Private schools: Abu Dhabi Indian School

Four different workshops were attended by five ADIS teachers, those workshops were organised by EAD. The workshops encompassed environmental topics such as biodiversity, waste management, air, and water. The attended workshops were shared with other teachers and applied to students from kindergarten till grade 9. The workshops were combined with the school curriculum for several subjects like English, mathematics, science and social studies.

In order to ensure that students understood the given material, teachers organised some activities, such as the Food Miles activity. In this activity students were asked to write a list of 5 daily food products they consume and the country these products are coming from. Teachers then explained the environmental costs of the process of transportation and storage of food because of the CO2 emissions that contribute to Climate Change. Teachers then proposed local and seasonal food items as a better alternative to buy in order to decrease the environmental impacts. ADIS teachers gave the students a workshop about system thinking; they explained to students how almost everything in the environment is co-dependent and that environmental problems need to have long term solutions.



#### Best Outdoor Field Education Category

#### First position, Government Schools: Aisha bint Othman School

The school carried out 18 field trips that involved 65 students from 4th grade to 12th grade. The school had many difficulties because it is located in a remote area and the number of external trips was limited. However they worked on making these trips possible by meeting with the school's Principle to make these trips more flexible. Most of the field trips aimed at educating the students more aware about the environment in the UAE, they went to many farms and were introduced to plant and animal species.

The school improved its total number of field trips in 2015-2016 by more than 77% compared to the year 2014-2015. The school also connected the learning outcomes of these trips to the curriculum and it was an effective way to educate students.



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### Sustainable schools success stories

#### Second position, Government Schools: Khnoor School

One hundred students participated in Khnoor school field trips. Compared to previous years the number of participants has gradually increased since 2013. The total number of field trips was 6 to places such as plant nurseries, farms, beaches and reserves. The trips involved different levels of students from kindergarten level to grade 12. The field trips were related to the school curriculum in order to help the students in the learning process. The aim of these trips is to support students' knowledge about the environment and their school material. They managed to overcome the considerable obstacle of the school's remote location.



#### First position, Private schools: Abu Dhabi Indian School – Al Wathba

Abu Dhabi Indian School in Al Wathba planned 4 field trips for the school students. The trips emphasised knowledge of biodiversity and recycling. The number of students whom were able to attend the field trip was impressive. More than 50% of the school students got the chance to join field trips including students from different grades. The school trips were purposeful as they aimed to cover different types of materials connecting with school subjects such as math and science. Even though the school faced difficulties in getting permission for some trips they tried to apply things they were going to do in the trip inside and around the school.

#### Second position, Private schools: Mayoora Private School

Mayoora School conducted 4 field trips that involved 1,040 students, these trips focused on energy and biodiversity. According to the school report 100% of students were exposed and all grades were taken into account for participating in the trip. The field trips included going to Khalifa Park, Emirates Zoo, Masdar city, Al Wathba wetland and ADNEC Exhibitions. Students gained valuable knowledge especially younger students, they observed the flora and fauna of some areas and found out the species names of some organisms, they also learned about more sustainable alternatives for energy resources. This is the school's second year participating in the Sustainable School Initiative after winning last year's Best community reach award, they are doing an impressive work.



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### Sustainable schools success stories

#### Best Lead Schools Category

##### First Position, Government Schools: Aisha Bint Abu Baker School

Aisha Bint Abu Baker School showed incredible dedication in participating in the Sustainable School Initiative since 2013. This year the school did not only complete all 4 components but also went further and adopted 7 schools of which some were nominated for the Sustainable Schools Initiative awards. The schools are: Fatima Bint Mubarak, Al Shawamekh, Um Al Emarat, Um Al Arab, Omama Bint Al Harith, Suqoor and Salama Bint Butti. These 7 schools performed well in all 4 components under Aisha Bint Abu Baker's excellent lead. Omama Bint Al Harith School was one of the schools that won an award for the Green School Audit, they managed to reduce their water bottle use from 275 bottles to 172 bottles, increase the shared transportation from 84% to 86%, and increase their green area by 11.34%.



All these achievements due in part to Aisha Bint Abu Baker's great guidance for their adopted school. Another school that benefited from ABAB School is Al Shawamekh School, they shone in the Eco Club category and had a unique project which was recycling of medical waste in Abu Dhabi, the school collaborated with pharmacies to achieve this project and succeeded. Previous to this award Aisha Bint Abu Baker School won 2 awards including 2nd place in 2013 for Sustainable School and 1st place in 2015 for Lead School.



The school showed brilliant effort in the TOT programme by integrating the workshops in the school curriculum, also in the Eco Club component where they worked on sorting and collecting E-waste. Furthermore, the school took their students to several field trips which were connected to their class lessons; also the green audit is fully completed and shows accuracy. The strength of the school comes from the support and involvement of the School Principal, which is reflected in the school's performance since it gives teachers and students motivation to work harder.

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### Sustainable schools success stories

#### Second position, Government Schools: Qatar Al Nada School

Qatar Al Nada School got the second place in the Lead Schools category. The school started participating in the programme since 2009. What made the school special and unique is that they showed an extraordinary performance by participating in all the components and requirements as well as adopting and training other schools. The school started by adopting 2 schools in 2014 however in this year they took a more challenging step by training and inspiring five schools such as Al Motahida School and Khnoor School.

Additionally, they convinced other schools whom did not participate previously or did not have intention to participate and join Sustainable School Initiative. They also encouraged schools to contribute in the 4 main components. All achievements were done in spite of their remote school location. Qatar Al Nada School have adapted the initiative components as spontaneous daily routine practice, which led them to reach this level of success.

The school ensures that it has 6 to 10 trips on a yearly basis that can make students connect the subjects with environmental issues. The achievement were not only limited to the school community, they took a further step and cooperated with hospitals to collect medical waste from houses and send it to hospitals.

Another example is cooperating with entities and schools to plant 1,000 trees for a “no desertification” project and much more. It is also important to note that the school participation and data collection have gradually improved every year; they covered all the requirements for the Green School Audit, Eco Club, Training of the Trainers, as well as Field Trips categories.



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### Sustainable schools success stories

#### Third position, Government Schools: Remah School

Remah School had one of the most effective and impressive external projects, which was called “Smart Farms”. Since the school is located in an area with high numbers of farms the aim of the project was to educate these surrounding communities and farms as well as save ground water from depletion. These farms use ground water for agricultural irrigation, therefore the school implemented a radical solution.

There are more than 500 farms in Al Remah and Abu Samra area, the school successfully installed the Smart Farm system in more than 100 farms. A Smart Farm is a farm that uses the most advanced technological control systems; it determines the required temperature, nutrients and pesticides for plants. These Smart Farms use organic pesticides, reduce consumption of water and reduce consumption of energy, on average this project resulted in reduction of water consumption by nearly 13% in the farms. In addition, energy use decreased by 20% due to effectiveness of the thermal insulation they used in polyethylene carbonate glass houses.

Remah school adopted three schools, the schools are Ibn Khaldon Islamic School, Al Khazna and Shakbout School. Remah as leading school focused on exchanging experiences and knowledge between schools, discussing sustainable schools reports and the most important projects. Furthermore, Remah School trained other schools on how to plan for projects, assisted other schools with projects and exchanged notes. The adopted schools learned many valuable things such as creating Eco Clubs, creating external and internal projects making reports for the Sustainable School Initiative.

Al Khazna School was convinced by Remah School to apply ground water project and also encouraged Ibn Khalodon School to use the concept of water consumption in order to make an action reducing water consumption in shops and houses. The school had excellent performance in data collection for green school audit as all the data were clearly organised and illustrated. They did not only show a good performance but also a good implementation of the project as the water consumption has sharply decreased since they joined the initiative in 2013.



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### Sustainable schools success stories

#### First position, Private schools: Abu Dhabi Indian School

Shaikh Khalifa Bin Zayed Bangladih Islamia Private School showed enormous improvement in the 4 components of the Sustainable School Initiative; the number of members in the Eco Club increased, the number of workshops attended in the TOT programme increased and the number of field trips increased as well, compared to the previous years.

The school is considered one of the most accurate and reliable schools, for example in the Green School Audit even though their carbon emissions were high they still reported every detail without hesitating and this shows high level of credibility. Moreover, the school faced an issue with their waste because they couldn't contract with a company in order to recycle the waste, but they solved this issue by cooperating with another lead school, Aisha Bint Abu Baker, to manage waste disposal. Aisha Bint Abu Baker School contracted with a waste management company to take all the waste from SKBZBI as well as ABAB School and recycle it instead of dumping it.

This is not the school's first win; they have won many awards previously including: best waste manager, best energy manager, best land manager and 2nd position in Lead School awards last year. Also, what makes this school special is their innovative thinking they installed a state of the art solar PV panel which provides 5% of the total energy consumption in the school. The school also used the concept of traditional wind tower (Burjeel) and with the support of two leading British scientists they initiated a cooling system for their room.



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### Sustainable schools success stories

#### Second position, Private schools: Abu Dhabi Indian School

Abu Dhabi Indian School is one of the active schools who have participated in all initiative component since 2009 and also succeeded to win in different categories. The school has showed a cooperative performance by adopting three other schools, which are Bright Riders School, Mayoor Private School and Abu Dhabi Indian School Al Wathba branch. Abu Dhabi Indian School helped these three schools in conducting better Green School Audits and also assisted them in planning for their Eco Clubs. All schools were guided well by Abu Dhabi Indian School, as a result of this guidance, these schools were nominated to the final stages for sustainable school Awards.



Their achievements were not only limited to adopting schools but they also had very precise and well organised data collection for the green audit. A remarkable point that the school club is considered one of the oldest environmental clubs in UAE it started since 1992. All events of the Eco Club were presented well with evidences. According to the school report, the number of club members increased 50% since 2009. Moreover, the school field trips aim also changed to focusing more on enhancing understandable knowledge for students and school community regarding sustainability concepts. Furthermore the number of students who benefitted from training of the trainers workshops were estimated to be 3,500 students.



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### Sustainable schools success stories

#### Third position, Private schools: Al Adhwaa School

Despite the fact that this is Al Adhwaa School first year participating in the Lead Schools Category, they did an impressive job by achieving in one year what should be done in two years. They had a remarkable performance in all four components of the SSI with high level of creativity. The school adopted 2 other schools: Future International School and Global International Private Academy. As a lead school they have guided their adopted schools, they have had meetings with them to advise them on project implementation, shared trainings with the Future international school and also conducted joint Eco Club projects with them.

The school is working on great projects, such as recycling of grey water, they are planning on collecting water from the sinks for recycling, especially the ablution water, this water will then be used for irrigation of green areas in the school. The school has its own compost pit where they generate manure to maintain their gardens, they also segregate their waste and dispose of it correctly and they successful converted all their buses from diesel to run on petrol.

The school Eco Club seems very organised and active, it has increased by 66% since 2013. The school won some awards in the past year including: Best Green School.



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### Sharing and learning

### Energy Challenge

Our environment is facing many uncountable problems; one of these problems is the high-energy consumption. Energy consumption considered as a problem because it plays an important role in using fossil fuels. The UAE considered one of the countries that generate electricity by using fossil fuels energy, which also means more pollution. EAD created a challenge for students called The Energy challenge. The challenge have been done for 3 years, It's a very interactive competition that aims to encourage students or participants to monitor and calculate energy consumption in houses by using a Smart App. Students are the seed of a sustainable environment society they can flourish and influence our environment positively if they were educated well about it.

The main component of the challenge is the “Collector for ArcGIS” application. This application is open for public, free for use in both apple, and play store. After installing the application on the device, the challenge can be successfully proceed. The challenge aware students about their energy consumption and influences to reduce it in a period of two months.

The application allows students to calculate their energy consumption depending on how many rooms, ACs, and electronic devices in their home. In addition, it allows them to record their electricity bills data. In fact, the challenge is not only about monitoring energy consumption it's more about sensing the value of educating people about reducing energy consumption. Reducing energy consumption can be done by educating families and spreading awareness regarding energy consumption to student's families and for the community, after the awareness comes the action of reducing the consumption.

Results were amazing as 90 students showed interest in the competition, total household surveyed reached 157 and the total of rooms in all households surveyed is 1966. The survey showed that 46% of households still use inefficient lighting. The average household electricity consumption per month is 629Kwh due to this amount of electricity consumption 14.67kg of CO2 produced per month. The results also states that people in households still use AC during cooler months. In addition, using incandescent lighting and misusing electricity can increase the electricity bills 4.7 times. The survey showed that 46% of households still use inefficient lighting. The average number of electrical and electronic devices used each house hold was found to be 47 device.

The assumptions of this challenge are that the UAE is planning new lighting regulations and switching to efficient lighting would save 65%of electricity consumed for lighting.

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### EAD Endeavours

### Educating for Sustainability – Online Course

**E-ADvantage**  
with teachers, for teachers

**HOME** Let's Start Here

**ABOUT US** EAD

**E ADVANTAGE** Learn With Us

**SSI** For Schools

**SCI** For Colleges

**ENVIRO-SPELLATHON** For Young Children

**E-ADvantage**

eLearning Platform

Modular Courses

Learning at self-determined pace

Certificate Course in Educating for Sustainability (CC EfS) for Intermediate Teachers.

<http://training.sustainable-schools.ae/>

For the Sustainable School Initiative EAD provided important resources for the teachers and students, one of these resources is Online Courses. The training of the trainer's component in SSI project aim to: Improve understanding of teachers on educating for sustainability, enhance their knowledge of locally emerging environmental issues, teach skills and practices that contribute to relate sustainability concepts to students and involve students in action oriented education to ensure they can relate and respond.

The online course explains and discusses important environmental issues including endangered species, climate change, future power and water education in the Arab world. EAD thrives to use advanced technology to overcome obstacles for more appropriate interactive communication, technology is not only able to provide opportunities but also has the possibility to change the educational process to a community of practice.

If you're primary or secondary level teacher and would like to be part of a fruitful online learning journey, please do send us your name along with your valid Email and contact details to [sustainable-schools@ead.ae](mailto:sustainable-schools@ead.ae)

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### EAD Endeavours

### Roots & Shoots programme

The Environment Agency - Abu Dhabi supports the Jane Goodall's Roots & Shoots programme. Its patron, best known for her defining work with chimpanzees, is the world famous Ethologist Dr Jane Goodall. She has worked tirelessly throughout her life for the protection of our planet, and in an effort to inspire youth and community action, started Roots & Shoots in 1991. It has now spread across 130 countries worldwide and is recognised as part of various school curriculums and volunteer programmes.

Signing up with Roots and Shoots allows schools to enroll with an internationally recognised body and benefits students with a range of hands-on activities they can engage with to enhance and promote environmental and humanitarian awareness. The programme offers students the know-how and technique in order to protect the environment as well as equipping them with lifetime skills and experience. They would also get the opportunity to share their success stories with other like-minded environmentally conscious students all over the globe, and get the chance to showcase their efforts to other participating schools at the annual Roots & Shoots ceremony where they would be awarded by Dr Jane Goodall herself.

To know more & register in Roots & Shoots programme click on below link:

<http://www.rootsshoots.ae/join-roots-shoots-uae/>



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## Important Dates to Remember in Quarter 3, 2016

16th September:

International Day for the Preservation of the Ozone Layer

### The Heat is on!

Summer is here and so are vacations! We are sure by now you have a mitigation plan ready for your school! Don't forget to remind the caretakers of your schools to follow the plan while you are on vacation. Sustainability does not take a vacation.

Make sure you remind them to:

1. Switch off/ Turn down A/Cs when not required
2. Switch off all faucets and water controls for unused areas
3. Take this opportunity to clean the Coolers
4. Keep the composting activity going on

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We look forward for your comments and feedback about  
our newsletter

To contact us  
[sustainableschools@ead.ae](mailto:sustainableschools@ead.ae)

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