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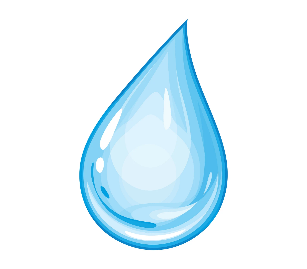
**GLOBAL GRANT COMMUNITY ASSESSMENT RESULTS FOR**

**GLOBAL GRANT APPLICATION GG2460802**

**13.03.2025**

**Providing drinkable water to more than 5.000 students from 34 primary and secondary schools in the region of Nurdagi, Turkey thanks to the investment of 34 photovoltaic water purification systems.**

**One area of Focus :**

** Water, sanitation and hygiene **

**1. Community overview**

**1.1. Location and geographic information**

The project will take place in the region of Nurdagi, in the West of Gaziantep city Turkey, destroyed from the devastating earthquake of 6 th of February of 2023.

34 schools have been choosen in order enable the students to have drinkable water. Schools where today nobody can drink any water from the sanitary block due to contaminated water supply from the government.

Nurdağı is a municipality and district of Gaziantep Province, Turkey. Its area is 697 km2 and its population is 41.322 (2022).

Nurdağı is 45 kilometres (28 mi) west of the city of Gaziantep.

Afbeelding met kaart, atlas, tekst

Automatisch gegenereerde beschrijving

A magnitude 7.8 earthquake struck 6 kilometres (3.7 mi) from Nurdağı on 6 February 2023, causing widespread devastation in the district and around 2,500 deaths. Mass graves were created to bury the overwhelming number of dead in the area.

**1.2. Total population of Nurdagi region before AND after the earthquake of 6 th February**

**Before the Earthquake:**

Inhabitants: Approximately 41.322 people.

Inhabitants below poverty line (BPL): Specific data for Nurdağı is not readily available, but Turkey's national poverty rate was around 21.3% in 20212.

Male and Female Population: Detailed gender-specific data for Nurdağı is not available, but the population was roughly balanced.

Households: Nurdağı had around 11,000 buildings.

**After the Earthquake:**

Inhabitants: The population significantly decreased due to the earthquake, with many residents relocating. An estimated 70% of the population left the area.

Inhabitants below poverty line (BPL): The poverty rate likely increased due to the economic impact of the earthquake, but specific figures are not available.

Male and Female Population: The gender distribution remains unclear, but the overall population has decreased.

Households: Thousands of buildings were destroyed or damaged, with over 5,000 homes collapsed.

The earthquake had a devastating impact on Nurdağı, leading to significant loss of life and displacement of residents. If you need more detailed information or specific data, I can help look further.

**1.3. The focus of the program**

This program is designed as a water and sanitation, hygiene development Rotary 1 star program. We will ONLY focus on providing clean water for more than 5.000 students. We will NOT focus on sanitation and hygiene systems (e.a. female hygiene).

• 34 photovoltaic water purification installations will be installed providing each hour 1.500 liter of clean purified water. This capacity is more than sufficient and calculated for every school. In that way we will install all standard installations which will ALL be the same. No different spare parts necessary as they will be able to be replaced easily from one part in stock at iLiL company.

• Per school one operator will be responsible to control the water quality and the good functioning of the water purification installation. This list will be managed from Rotary Club Kavaklik Gaziantep.

**1.4. Income in the region**

**Nurdağı, Turkey**: Specific MPI data for Nurdağı is not available. However, Turkey's national MPI data indicates significant poverty, especially in rural areas

**Nurdağı, Turkey:** Turkey has faced challenges with food security, particularly in rural areas. The rural poverty rate is around 35%, compared to 22% in urban areas. Efforts by the World Food Program and other organizations have aimed to alleviate hunger and improve food security.

The recent influx of Syrian refugees also placed pressure on food security in Turkey. Turkish communities hosting Syrian refugees have expanded by up to 30%, which increased competition for employment and increased rent prices.

The International Fund for Agricultural Development (IFAD) implemented a plan in 2006 that focused on job-creation to bolster economic prosperity and improve living standards in rural areas to address hunger in Turkey.

The IFAD plan aims to increase participation in Turkey’s labor force by supporting small businesses and encouraging self-employment that generates incremental income.

This strategy also works to improve agricultural initiatives in remote areas of Turkey through the spread of farm mechanization and processing plants.

The United Nations Development Programme (UNDP) launched the Ardahan-Kars-Artvin Development Project (AKADP) to further reduce poverty in Turkey.

**1.5. Access to education and health services in the region**

* **Education**

Public Education Center: Nurdağı has a Public Education Center that offers a variety of courses for adults, including language, computer, and vocational training. This center plays a crucial role in providing educational opportunities and improving skills among the local population.

Schools: The region has several primary and secondary schools, but specific enrollment figures are not readily available. The overall literacy rate in Turkey is around 96%, indicating a strong emphasis on education.

* **Health Services**

Nurdağı State Hospital: The main healthcare facility in Nurdağı is the Nurdağı İlçe Devlet Hastanesi, which provides a range of medical services to the local population.

Healthcare Access: Turkey's public healthcare system offers medical services to all insured persons, including Turkish citizens and residents with general health insurance. The quality of healthcare facilities varies, but even in remote regions like Nurdağı, public healthcare centers are available to meet the medical needs of the local population.

**1.6. Health services in the region**

* **General Quality**

**Public Perception**: In 2023, slightly over one-third of surveyed individuals in Turkey rated the quality of healthcare they have access to as good or very good1.

**Healthcare Facilities**: Nurdağı has access to public healthcare facilities like the Nurdağı State Hospital, which provides essential medical services. However, the quality and availability of specialized care may be limited compared to larger urban centers.

* **Healthcare System Improvements**

**Health Transformation Program**: Since 2003, Turkey has implemented the Health Transformation Program to improve healthcare access and quality. This program has significantly increased the percentage of the population covered by government health insurance, reaching 98.8% by 2021.

**Public and Private Healthcare**: Turkey offers both public and private healthcare services. While public healthcare is accessible and affordable, private healthcare facilities often provide higher quality services and shorter wait times.

* **Challenges**

**Rural Healthcare**: In rural areas like Nurdağı, access to high-quality healthcare can be more challenging due to fewer facilities and medical professionals.

**Patient Satisfaction:** Despite improvements, only 29% of Turkish people were satisfied with the quality of healthcare they and their families had access to in 2024.

Overall, while there have been significant improvements in Turkey's healthcare system, rural areas like Nurdağı may still face challenges in accessing high-quality healthcare services.

**1.7. Water quality in the region of Nurdagi**

The quality of drinking water in the schools of the Nurdağı region in Turkey can vary, but here are some general points about water quality and sanitation in Turkish schools:

**General Water Quality in Turkey**

**Water Quality**: According to the Environmental Performance Index, Turkey scores 85.06 out of 100 for water and sanitation quality. This means that access to improved water sources and sanitation facilities is now available to 100% of the population, compared to 86% in 1990.

**Specific Conditions in Schools**

**Sanitation Facilities**: A study in Antalya, another region in Turkey, showed that many schools had issues with providing clean drinking water, regular pest control, and sufficient cleaning staff. While this study is specific to Antalya, similar challenges are also occuring in Nurdağı.

**Real-time Water Quality**: There are systems like TDSBots that monitor water quality in real-time, including in regions like Nurdağı. These systems help in monitoring the status of water filters and provide maintenance alerts.

Via Nurdagi deputy we have requested a laboratory test and certificate about the water quality. The official instances gave us a certificate stating that the water quality is ok although nobody in the schools is drinking from the water supply in the schools. We were said that we can not give any importance to this report as this official instance can not say that the water quality is bad. The consequences of such a real report and the repression of the government on those who edited the report could be so destructive that we can not give any reliability to the report. Children and students are getting sick and are staying home or have to bring water themselves to their school.

During the assessment study it was clear that all schools had to be tested concerning the purity of the water in the schools. Schools having clean and drinkable water do not need any water purification system. To exclude any misunderstanding, the committee decided to take 34 extra water samples, one sample per school mentioned in the list to check the water quality.

It was Rotary International who required complete official report of this water quality in order to be able to conclude the investment of 34 water purification systems. For this reason RC Izegem asked the Rotary Club Kavaklik of Gaziantep to search for an official institute laboratory to take samples in all the schools. A price offer has been asked to three different laboratories and İŞ HİJYENİ LABORATUVAR LTD.ŞTİ. has been chosen to execute all these tests for the price of 75.000 TRY + 21 % VAT = The total sum for the testing and reporting was around 2.500 $.

RC Izegem transferred this amount from their bank account to Rotary Kavaklik in the beginning of February 2025.

End of February ’25 we received all reports and a synthesis has been made. See below excel sheet. None of the samples were OK and many bacteria presence showed the absolute need for water purification systems. Although this laboratory has no right to take decisions about the need in investments they asked Rotary Kavaklik to get advice from specialized companies to make the final decision.

As one of the members of Rotary Club Izegem Mr. Henk Callens (company INDUFARM : [www.indufarm.be](http://www.indufarm.be) ) is an expert in water purification systems (but then for animals) we found it more than logic to ask his opinion about the results of the laboratory tests. Water for breeding animals has to be optimal and is much more the case for human beings.

According to the advices of Henk Callens it was clear that all schools absolutely need purification systems if children want to be deliberated from diseases coming from drinking bad water in their schools. Also the opinion has been asked concerning the water purification solutions that have been offered. There are a few ways to clean water. In many countries bacteria are killed by adding chemical substances like Huwasan in a proportion of 30 ppm per 1.000 liter water. In case of using UV light (as in the solution given from iLiL company) adding chemicals is NOT necessary. Only the replacements of the UV lights has to be controlled after a certain time. It is recommended to replace the UV- lights after one year functioning even if they are still giving light. It is also recommended to change the QUARTZ filling unit in order to see if there is not too much dirt or limescale sticking to this filling unit. The well-functioning of the water purification systems will be controlled and checked yearly from iLiL company.

The results are shown below :

**Quality check results of water samples in all schools** :

TABLE 1.

|  |  |  |  |
| --- | --- | --- | --- |
| School List For Water Purification System |  | Water quality | Report Number |
| List of prefabricated schools | student number |  | Laboratory |
| 1. Nurten Öztürk Middle-School | 390 | NOK | 99 |
| 2. Nurten Öztürk Primary-School | 473 | NOK | 76 |
| 3. Şehit Uğur Saka Primary-School | 359 | NOK | 62 |
| 4. Şehit Ömer Halis Demir Primary-School | 298 | NOK | 66 |
| List of concrete schools |  |  |  |
|  | student number |  |  |
| 5. Şehit Emrah Çetin Primary-School | 352 | NOK | 69 |
| 6. Başpınar Şehit Murat Çınar Primary-School | 64 | NOK | 63 |
| 7. İçerisu İlker Arslan Primary-School | 83 | NOK | 89 |
| 8. Hamidiye Primary-School | 57 | NOK | 95 |
| 9. Aslanlı Primary-School | 77 | NOK | 77 |
| 10. Aslanlı Middle-School | 279 | NOK | 75 |
| 11. Fatih Middle-School | 328 | NOK | 68 |
| 12. Mahmut Çakmak Middle-School | 112 | NOK | 86 |
| 13. Şatırhöyük Middle-School | 107 | NOK | 92 |
| 14. Başpınar Middle-School | 42 | NOK | 78 |
| 15. Sevgi Feyzullah Childgarden | 151 | NOK | 71 & 72 |
| 16. Nurdağı Childgarden | 107 | NOK | 73 |
| 17. Nurdağı Gıda A.Ş Childgarden | 108 | NOK | 74 |
| 18. Gözlühöyük Kirkagaç Ilkögretim Primary school | 23 | NOK | 94 |
| 19. Durmuşlar Primary-School | 36 | NOK | 83 |
| 20. Gökçedere Primary-School | 40 | NOK | 100 |
| 21. Güneykışla Primary-School | 46 | NOK | 88 |
| 22. Ince Gedik Ilkögretim Primary school | 29 | NOK | 87 |
| 23. Kırkpınar Primary-School | 21 | NOK | 101 |
| 24. Sayburun Primary-School | 11 | NOK | 85 |
| 25. Şehit Hasan Cevahir Çelik Primary-School | 29 | NOK | 70 |
| 26. Altınova Primary-School | 39 | NOK | 98 |
| 27. Toyluyurt Primary-School | 39 | NOK | 84 |
| 28. İncirli Primary-School | 231 | NOK | 82 |
| 29. Şehit İlhan Özdemir Primary-School/Kurudere Middle School | 144 | NOK | 79 & 80 |
| 30. Sakçagözü 10 Kasım Primary/Middle-School | 189 | NOK | 93 |
| 31. Sakçagözü Primary/Middle-School | 470 | NOK | 97 |
| 32. Gedikli Osman Kaplan Primary/Middle-School | 141 | NOK | 96 |
| 33. Terken Primary/Middle-School | 163 | NOK | 90 & 91 |
| 34. Doktor Salman Gülsoy Ilkögretim Primary School | 293 | NOK | 65 |
| Total number of students | 5.331 |  |  |

**Conclusion :**

While efforts are being made to improve water quality and sanitation facilities in Turkish schools, big challenges are still existing, especially in more rural areas like Nurdağı where the earthquake struck the region very hard. It is important for schools to have access to clean drinking water and adequate sanitation facilities to ensure the health and well-being of students.

**2. Collecting community assessment data by assessment team**

**2.1. Introduction**

To inventarize the needs and priorities of the schools, during 2023 and 2024, a physical assessment of 10 days has been executed by a team of different members of Rotary Club Kavaklik Gaziantep.

Many meetings have been held with the Mayor of Nurdağı, see below visiting list, many schoolvisits from Rotary club Kavaklik during these trips convinced the committee to take action. Although the initial project was designed to build also computer classes, music classes to help students cope with their dramatic trauma’s (losing parents, aunts & uncles, brothers and sisters and many friends), this project would lead us to a wide spread of Rotary focusses of help. The districtsmanagers of D2130 gave us the advise not to focus on different focusses because this would lead us too far in administrative follow-up of the goals and realizations. Therefore the committee decided to focus only on waterpurification installatons. The districtmanagers advised us to read carefully the Washguidelines especially made for such investments and from which we learned how to work out the assessment study.

During the technical search for the best installation, the committee also decided to focus on photovoltaic installations so that they could run also without expensive electricity bills and which gave us the opportunity to be sustainable by investing in such technology.

**2.2. Visit Program :**

01.10.2023 First meeting with Kavaklik Rotary club to start up a global grant project.

07.02.2024 Meeting with Rotary club Kavaklik incoming president Mustafa Güler at Gaziantep to discuss the scope of the global grant.

10.07.2024 Meeting with Rotary club Kavaklik president Mustafa Güler at Gaziantep

02.09.2024 Meeting with Nurdağı State District Guvernor Mr.Nurullah Cemil Erciyas at Nurdağı + visits to schools

15.10.2024 Meeting with Nurdağı Mayor Mr.Mehmet Yıldırır at his Gaziantep Office

21.10.2024 Meeting with Nurdağı Deputy of Mayor Mrs.Belkıs Akyılmaz at Nurdağı + visits to schools + visit of iLiL to all the schools

20.11.2024 Meeting with Nurdağı Mayor Mr.Mehmet Yıldırır at his Nurdağı Office

12.12.2024 Meeting with Nurdağı Deputy of Mrs.Belkıs Akyılmaz at Nurdağı

19.01.2025 Meeting with Mr.Nicolas Douchy President of Rotary Izegem Club at Divan Hotel

20.01.2025 phone call with private laboratory İŞ HİJYENİ LABORATUVAR LTD.ŞTİ for water analysis offer

28.01.2025 Meeting with ilil Project team and Nurdağı Mayor Management at Nurdağı

**2.3. Visit by the assessment team committee.**

During my first visit in Gaziantep after the earthquake in 2023 I noticed that the city of Gaziantep itself was not so badly hurt. I asked the Rotary president of Kavaklik Gaziantep if we could be of help for rebuilding the destroyed area around Gaziantep. Then I learned that the consequences of the earthquake were most situated in the region of Nurdagi after which the took contact with the Mayor of Nurdagi.

Because the project we wanted to start up was so hopefull, the Mayor of Nurdagi invited the president and incoming president of rotary club Kavaklik Gaziantep to start the talks about the project and with the big help of the Mayor the project came into shape.

During the many visits from Mr. Mustafa Güler (president of Rotary Club Kavaklik Gaziantep) to the mayor of Nurdagi Mr. Yildirir and the Deputy of Mayor Mrs. Belkis Akyilmaz it became clear that they were very excited about the intention of this program and the tremendous help this will give to the local community and particularly for the students. The mayor and his deputy team are giving their full cooperation and support to help this project and to bring it towards a good end. After many discussions we came to know that investing in one school for one water purification installation was only a drop on a hot plate. We needed a bigger plan and help most of the primary and secondary schools in the region of Nurdagi.

**2.3. Visit report from iLiL concerning water installations.**

In October 2024 iLiL visited all 47 schools together with a committee of Rotary Kavaklik Gaziantep in order to set up a list of schools that need the most a water purification installation and reported a list of the current water installations available in the schools. In order to choose the right schools in the region of Nurdagi, the committee, the mayor of Nurdagi have made an assessment study. This study was based on different criteria :

Need-Based Assessment:

* Socio-economic Status: Schools in areas with lower socioeconomic status may be prioritized to address disparities.
* Infrastructure Needs: Schools lacking basic facilities like classrooms, sanitation, and electricity might be given priority.

Educational Performance:

* Academic Results: Schools with lower academic performance may be targeted to improve educational outcomes.
* Dropout Rates: Schools with higher dropout rates might be selected to implement retention programs.

Geographical Considerations:

* Rural vs. Urban: Rural schools might be prioritized if they are typically underserved compared to urban schools.
* Accessibility: Schools in remote or hard-to-reach areas may be chosen to ensure all students have access to quality education.

Demographic Factors:

* Student Population: Schools with a higher number of students might be prioritized to maximize the impact of the investment.
* Special Needs: Schools with a significant number of students with special needs might be selected to provide necessary support and resources.

Community Engagement:

* Parental Involvement: Schools with active parental and community involvement might be chosen to leverage local support.
* Local Partnerships: Schools with existing partnerships with local organizations or businesses might be prioritized to enhance the effectiveness of the investment.

Government and Policy Alignment:

* Policy Priorities: Schools that align with national or regional education policy priorities might be selected.
* Previous Investments: Schools that have received little to no previous investment might be prioritized to ensure equitable distribution of resources.

These criteria help ensure that the investments which will be directed towards the chosen schools will benefit the most and contribute to overall educational improvement in the region of Nurdagi.

Based on this report and in cooperation with the school committees, a list of 34 schools out of 47 schools have been selected to be granted with a water purification installation. The schools in yellow have been selected, the schools in orange color have been canceled.

In order to standardize the systems and due to the variety of systems in all 34 schools the committee has decided to go for equal systems all with same tanks and similar size. This will reduce the cost of installation as in every school the system will be the same. Of course the volume of clean water produced in each school will be different according to the number of students making use of the clean water service. This will automatically involve another use of the pumps. This means that the filters of one pump will have to be changed faster than the other. The need for change will be measured in regular intervals so that the water quality will be checked on regular times. The responsibility will be given to iLiL and they will report every 4 months to Rotary Club Kavaklik from Gaziantep.

A schedule for maintenance and control of the water quality will be in function for each school. All results of the water quality will be checked from one central person per school who will check all the water samples collected from each school. Rotary club Kavaklik will be responsible for the severe control of these results. Each year one person will be pointed as responsible at the RC of Kavaklik Gaziantep and will report to the president of the club. Based on the results of the water quality of each checkpoint the maintenance schedule of all water installations will be determined or amended when needed.

Most of the water purification systems will be installed in concrete buildings (30 of the 34 schools). The other four installations will be moved once the final school has been built to this concrete school. In that sense we are guaranteeing that ALL installations will be installed and in good function working in their final school.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Current water installation situation schools report after visiting all schools in Nurdagi** | | |  |  |  |
|  |  |  |  |  |  |
| **Name of the school** | **Number of students** | **Waterpoint info** | | | |
|  | **In function ?** | **Tonage info** | **Construction material** | **Waterpump Information** |
| 3- Şehit Mustafa Altan ÇPAL | 225 | None |  |  |  |
| 4- Şehit Şirin Diril ÇPAL | 444 | Present/ Not in use | 10 ton | Steel | Present |
| 6- Nurdağı Mesleki Eğitim Merkezi |  | None |  |  |  |
|  |  |  |  |  |  |
| **Primary school** |  |  |  |  |  |
| 1- Şehit Astsubay İbrahim Tıraş İlkokulu | 294 | None |  |  |  |
| 2- Şehit Emrah Çetin İlkokulu | 352 | Present/ In use | 5 ton | Galvanized | present/Arzalı |
| 3- Şehit Uğur Saka İlkokulu | 359 | Present | 4 ton | Steel | present |
| 4- Nurten Öztürk İlkokulu | 473 | Present | 7.5 ton | Hard Plastik | Present |
| 5- Şatırhöyük İlkokulu | 142 | None |  |  |  |
| 6- Başpınar Şehit Murat Çınar İlkokulu | 64 | None |  |  |  |
| 7- İçerisu İlker Arslan İlkokulu | 83 | None |  |  |  |
| 8- Dr. Salman Gülsoy İlkokulu | 306 | Present/Deformed | 10 ton | Rustfree steel | Present /2 from which 1 broken |
| 9- Hamidiye İlkokulu | 57 | None |  |  |  |
| 10- Aslanlı İlkokulu | 77 | None |  |  |  |
|  |  |  |  |  |  |
| **Independant school** |  |  |  |  |  |
| 2- Aslanlı Ortaokulu | 279 | Present | 1 Ton | Chrome | None |
| 3- Dr. Salman Gülsoy Ortaokulu | 258 | None |  |  |  |
| 4- Fatih Ortaokulu | 328 | Present | 5 ton | Galvanized | Present |
| 5- Mahmut Çakmak Ortaokulu | 112 | Present/ Inactif |  |  |  |
| 6- Nurten Öztürk Ortaokulu | 390 | None |  |  |  |
| 7- Şatırhöyük Ortaokulu | 107 | Present | 5+5 =10 | Chrome | None |
| 8- Şehit Ömer Halisdemir Ortaokulu | 298 | None |  |  |  |
| 9-Başpınar Ortaokulu | 42 | None |  |  |  |
|  |  |  |  |  |  |
| **Fusionclasses basic school** |  |  |  |  |  |
| 1- Atmalı İlkokulu | 9 | None |  |  |  |
| 2- Bademli İlkokulu | 11 | None |  |  |  |
| 3- Beydilli İlkokulu | 20 | None |  |  |  |
| 4- Kırışkal İlkokulu | 12 | None |  |  |  |
| 5- Gözlühöyük Kırkağaç İlkokulu | 23 | None |  |  |  |
| 6- Durmuşlar İlkokulu | 36 | Present | 50 ton | Concrete | None |
| 7- Gökçedere İlkokulu | 40 | None |  |  |  |
| 8- Güneykışla İlkokulu | 46 | None |  |  |  |
| 9 İncegedik İlkokulu | 29 | None |  |  |  |
| 10- Kırkpınar İlkokulu | 21 | None |  |  |  |
| 11- Sayburun İlkokulu | 11 | None |  |  |  |
| 12- Şehit Hasan Cevahir Çelik İlkokulu | 29 | None |  |  |  |
| 13- Altınova İlkokulu | 39 | None |  |  |  |
| 14- Toyluyurt İlkokulu | 39 | Present | 4 Ton | Steel | Present |
|  |  |  |  |  |  |
| **Secondary school** |  |  |  |  |  |
| 1- Hisar İlk/Ortaokulu | 172 | None |  |  |  |
| 2- İncirli İlk/Ortaokulu | 231 | Present | 5 ton | Galvanized | Present |
| 3- Kartal İlk/Ortaokulu | 332 | none |  |  |  |
| 4- Şehit Gökhan Özdemir İlkokulu / Kurudere Ortaokulu | 144 | Present /Not in use | 2+4 | Steel |  |
| 5- Sakçagözü 10 Kasım İlk/Ortaokulu | 189 | None |  |  |  |
| 6- Sakçagözü İlk/Ortaokulu | 470 | Present/Inactif |  |  |  |
| 7- Gedikli Osman Kaplan İlk/ Ortaokulu | 141 | Var | 2 ton | Hard Plastik | Present |
| 8- Terken İlk / Ortaokulu | 163 | Var | 12 ton | Galvanized | Present |
| 9- Empati İlk/Ortaokulu | 351 | Var | 10 ton | Chrome | Present |
|  |  |  |  |  |  |
| **Independant childschool (kindergarten)** |  |  |  |  |  |
| 1- Sevgi Feyzullah Anaokulu | 151 | Var/ Kullanılmıyor | 4 ton | Galvaliz | Present / Arzalı |
| 2- Nurdağı Anaokulu | 107 | None |  |  |  |
| 3- Nurdağı Gıda A. Ş Anaokulu | 108 | Var | 8 Ton | Chrome | Present |
|  |  |  |  |  |  |
| 47 schools |  |  |  |  |  |

Final list of schools where photovoltaic water purification pumps will be installed :

|  |  |
| --- | --- |
| School List For Water Purification System | |
| List of prefabricated schools | student number |
| 1. Nurten Öztürk Middle-School | 390 |
| 2. Nurten Öztürk Primary-School | 473 |
| 3. Şehit Uğur Saka Primary-School | 359 |
| 4. Şehit Ömer Halis Demir Primary-School | 298 |
| List of concrete schools | student number |
| 5. Şehit Emrah Çetin Primary-School | 352 |
| 6. Başpınar Şehit Murat Çınar Primary-School | 64 |
| 7. İçerisu İlker Arslan Primary-School | 83 |
| 8. Hamidiye Primary-School | 57 |
| 9. Aslanlı Primary-School | 77 |
| 10. Aslanlı Middle-School | 279 |
| 11. Fatih Middle-School | 328 |
| 12. Mahmut Çakmak Middle-School | 112 |
| 13. Şatırhöyük Middle-School | 107 |
| 14. Başpınar Middle-School | 42 |
| 15. Sevgi Feyzullah Childgarden | 151 |
| 16. Nurdağı Childgarden | 107 |
| 17. Nurdağı Gıda A.Ş Childgarden | 108 |
| 18. Gözlühöyük Kirkagaç Ilkögretim Primary school | 23 |
| 19. Durmuşlar Primary-School | 36 |
| 20. Gökçedere Primary-School | 40 |
| 21. Güneykışla Primary-School | 46 |
| 22. Ince Gedik Ilkögretim Primary school | 29 |
| 23. Kırkpınar Primary-School | 21 |
| 24. Sayburun Primary-School | 11 |
| 25. Şehit Hasan Cevahir Çelik Primary-School | 29 |
| 26. Altınova Primary-School | 39 |
| 27. Toyluyurt Primary-School | 39 |
| 28. İncirli Primary-School | 231 |
| 29. Şehit İlhan Özdemir Primary-School/Kurudere Middle School | 144 |
| 30. Sakçagözü 10 Kasım Primary/Middle-School | 189 |
| 31. Sakçagözü Primary/Middle-School | 470 |
| 32. Gedikli Osman Kaplan Primary/Middle-School | 141 |
| 33. Terken Primary/Middle-School | 163 |
| 34. Doktor Salman Gülsoy Ilkögretim Primary School | 293 |

|  |  |
| --- | --- |
| TOTAL NUMBER OF SCHOOLS : | 34 |
| TOTAL NUMBER OF STUDENTS : | 5.331 |

**4.. Target population**

**4.1. The beneficients**

It is obvious that the more than 5.000 students will be the beneficients of the project. These students are located in the 34 schools the committee has chosen in close cooperation with the Mayor of Nurdagi.

Also school direction and teachers will benefit from the water supply.

After all the whole community of Nurdagi will have a lot of benefits from the better functioning of the education of the students due to less absence.

Afbeelding met overdekt, meubels, muur, bureau

Door AI gegenereerde inhoud is mogelijk onjuist. Afbeelding met overdekt, meubels, muur, bureau

Door AI gegenereerde inhoud is mogelijk onjuist. Afbeelding met buitenshuis, hemel, deur, tekst

Door AI gegenereerde inhoud is mogelijk onjuist.

Pictures taken in one of the schools which is also chosen for one water purification system. This school is also object for another medical search/study supported by Kavaklik Rotary club Gaziantep to investigate the actual diseases occurring in the schools due to the consequences of the earthquake on the health of the students.

**4.2. Identification beneficients**

Education and community development :

Due to clean drinkable water, the students will be less absent from school, will be able to focus on their studies and consequently their education will be a lot better than before. It will give them the strength to learn faster and go faster forward towards a diploma. Instead of staying immobile and not succeeding in their exams it is giving hope to them to be able to realize things themselves. We are convinced this is one of the main goals in the project.

After installation of each photovoltaic water purification a vocational training will be given to the responsible in the specific school. iLiL, the company who will install this water filter will be responsible for this learning process. The maintenance process, the water quality check and the intervals will be learned per school as one school will have to change the water filters quicker than the other. This has to do with the number of liters of filtered water which will pass the filter. Each report of installation and learning process will be handed over to Rotary Kavaklik Gaziantep in order to follow up the installations and degree of completion of the project.

iLiL is a qualified company pointed by the committee of Rotary Gaziantep as being the best to do this job. They have excellent technical staff and the skills to do this job.

**4.3 Description of the benefits related with the investment of the water purification installations :**

* **Improved Health**: Clean water reduces the risk of waterborne diseases such as cholera, dysentery, and typhoid, leading to better overall health and fewer absences due to illness.
* **Enhanced Academic Performance**: With fewer health-related absences, students can attend school more regularly, leading to better academic performance and higher retention rates.
* **Increased Hydration**: Access to clean drinking water ensures that students stay hydrated, which is essential for maintaining concentration and cognitive function throughout the school day.
* **Better Hygiene Practices**: Clean water is crucial for proper handwashing and sanitation, reducing the spread of infections and promoting a healthier school environment.
* **Environmental Benefits:** Photovoltaic systems use solar energy, which is a renewable resource, reducing the carbon footprint and promoting environmental sustainability.
* **Economic Savings:** Schools can save money on energy costs by using solar power, which can be redirected towards other educational resources and programs.
* **Community Empowerment:** Access to clean water can empower communities by improving health and education outcomes, leading to long-term socio-economic benefits.
* **Gender Equality:** In many regions, girls are often responsible for fetching water. With clean water available at schools, girls can spend more time in class, promoting gender equality in education.
* **Skill Development**: Implementing and maintaining photovoltaic water purification systems can provide students with practical knowledge and skills related to renewable energy and water management.
* **Resilience to Climate Change**: Solar-powered systems are less vulnerable to power outages and can provide a reliable source of clean water even in remote or disaster-prone areas.

These advantages collectively contribute to a healthier, more educated, and empowered student population, fostering a brighter futur for the communities involved.

**5. Community strength, needs, priorities and project design**

**5.1. Describe what the members of the community said matters to them during the assessment**

About the current situation :

The need to have change to get clean water is very high. Today too many people are absent from the schools so that a lot of the students can not finish their study period on time and they are getting long delays in finishing their studies. Many of them even stop studying and are forced to start working.

Priorities and needs :

Today the focus for the Nurdagi region is laying on rebuilding the village after so many buildings have collapsed, there is a big need for reconstructing. Also the water infrastructure in the city is hurt so badly that the official instances can not fulfill all the needs of the region. Therefore the help from Rotary and Rotary international is so important. Installing one pump has no sense. Only when investing in a water purification installation for each school will show a big step forward for the students and their general education.

About the plan for the education :

Giving them 100 % warranty towards the use of safe and drinkable water will take away the anxiety of being ill when drinking water. It will restore the faith in going to school and study for their own future.

**5.2. Describe the long-term plan for the project (such as oversight, financial responsibilities, and**

**expected behavior change) after Rotary’s involvement ends**

**Overview :**

The preparation and execution of the total program has been organized from :

* Rotary club Kavaklik Gaziantep host
* Rotaryclub Izegem International partner
* Mayor of Nurdagi and his deputy committee Nurdagi region
* iLiL company Nurdagi Training, maintenance, reports

**Long term prospect**

Mayor of Nurdagi and his deputy committee is taking over the whole project after 5 years and is guaranteeing the continuity and taking over of the responsibility of the project after completion of 5 years of the project. This has been confirmed in a formal letter (see attachement).

**Financial responsibilities:**

* Rotary club Izegem has raised the local funds for the grant (from the different Belgian Rotary clubs), the districtfunds, the international funds and the funds from the King Baudoin fund and has edited the project in close cooperation with Rotary club Gaziantep
* Rotaryclub Izegem has separated one bank account especially and only for this global grant project and is responsible for the expenses and the financial end report for the costs which will be paid via Belgium to Turkey.
* Rotary club Kavaklik Gaziantep has opened a bank account especially for this global grant and is responsible for the expenses and the financial end report which will be paid in Turkey. The funds for the project are coming for more than 90 % from the collected money via Rotary Izegem.
* iLiL company is responsible for the installation of the water purification installations and will be paid from the funds available at Rotary Kavaklik Gaziantep. The investment in the 34 photovoltaic water purification installations will be the biggest part of the expenses.

**Non-eligible costs :**

* When the project was launched we received some remarks from Rotary International about some non-eligible costs. A few costs like organizing a diner for the sponsorclubs to inform the sponsors how far the project has advanced can not be seen as eligible costs. Although we don’t understand the reason why this should be taken out of the budget we have decide to keep them still out of the budget and will be sponsored from Rotary Izegem.
* Also the travel expenses (1 flight per year) have been taken out of the budget and visits to the project will be sponsored by visiting members of the clubs.
* Publicity costs for making a short video and show the world what Rotary can achieve when working together even by different religions have also been taken out of the budget and will be sponsored by Rotary Club Kavaklik Gaziantep.

**5.3. Technical support**

The technical support will be organized from iLiL company, water quality checks will be organized from them after having collected all the water samples on regular basis from the schools.

The reports of the water quality will be sent to the responsible in Rotaryclub Kavaklik Gaziantep who will point out one person specific for this program and fix during 5 years.

The installation, the maintenance of the filters and repair when necessary is all included in the contract and is guaranteed for 5 years by iLiL.

**5.4. Long term plan 5 years**

As we are not talking about a manufacturing plant but an investment of 34 water purification pumps and tanks there is no business model necessary as there is no income foreseen from selling water. Only the foreseen expenses during 5 years are covered from the funds that have been collected for the project and which are financed in the project. All expenses will be executed in the first year by investing in the 34 water purification installations.

Both Rotary clubs are intending to increase the funds during the coming years in case there should be extra costs coming for unexpected facts. The maximum of extra funds is limited to 3.000 € for Rotary Club Izegem AND 3.000 € for RC Kavaklik Gaziantep. We are NOT foreseeing any problems about the water installations. During five years we have a guarantee for the well-functioning of the pumps from iLiL company. In this guarantee also the changing of the water filters are included as well as the spareparts when something would occur during this five year period. Also the delivery of the necessary quantity of salt. These conditions are included in the contract.

Year 1 – 5 NGO model

**5.5. Governance**

To make the program a success a committee will be installed:

The working Committee will consist of :

* Members of the Rotary club of Izegem
* Members of the Rotary club of Kavaklik Gaziantep
* The mayor of Nurdagi
* One employee/responsible for the project from iLiL company

This committee will meet each other following a fixed scheme, every 2 months after the start-up of the project via Zoom or Teams to review the progress of the work on a regular basis. The committee will be empowered to advise concerning the management of the vocational training, the follow-up of of the sample taking on fixed dates and consequently the reports for the water quality, the necessary maintenance or repair reports which will be available for each school.

**5.6. Testing methods :**

The TSE 266 standard, established by the Turkish Standards Institute (TSE), outlines the quality requirements for water intended for human consumption. This standard ensures that drinking water is safe and meets specific health criteria.

Some key aspects covered by TSE 266:

* **Chemical Parameters:** Limits for substances like heavy metals (e.g., lead, mercury), nitrates, and other chemicals that could be harmful if consumed in large quantities.
* **Microbiological Parameters**: Standards for the presence of bacteria, viruses, and other microorganisms to ensure the water is free from pathogens.
* **Physical Parameters**: Guidelines for the appearance, taste, and odor of the water to ensure it is pleasant for consumption.
* **Radiological Parameters**: Limits for radioactive substances to ensure the water is safe from radiological hazards.

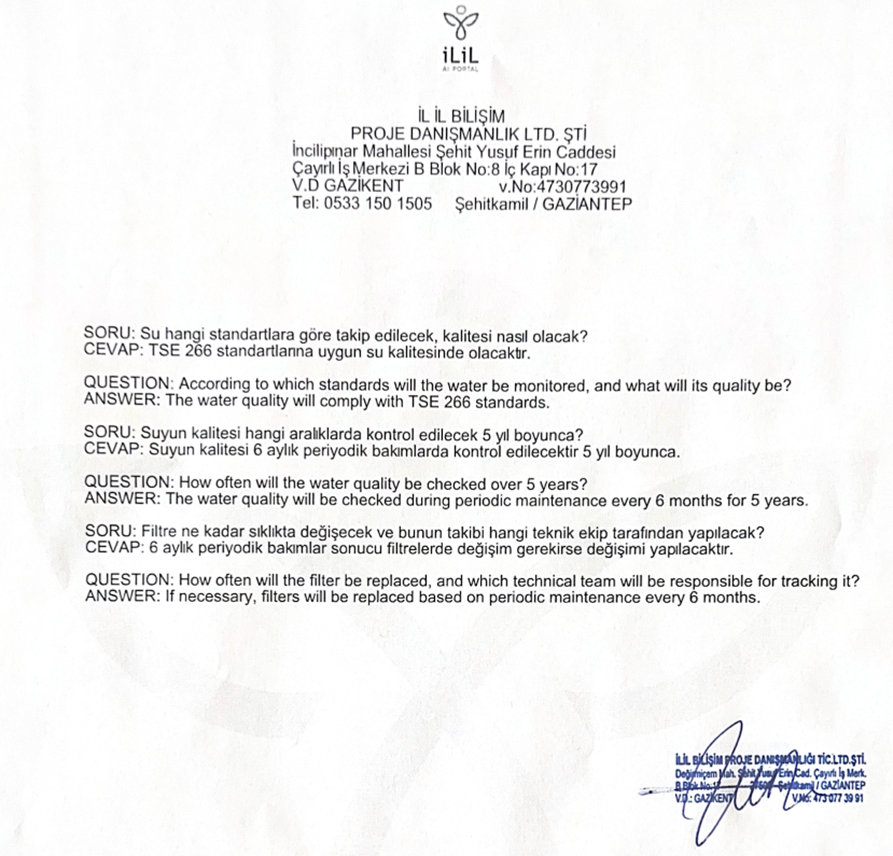
The TSE 266 standard aligns with international guidelines, such as those from the World Health Organization (WHO), to ensure comprehensive safety and quality.

These tests are often conducted using EPA-approved methods to ensure accuracy and reliability.

As for the frequency of testing, it can vary depending on the type of water system and local regulations. Generally, public water systems are required to test their water monthly to ensure safety and compliance. For private systems, such as wells, it is recommended to test at least once a year for total coliform bacteria, nitrates, TDS, and pH levels.

In cooperation with iLiL company it has been decided to take water samples every 6 months for 5 years. The samples will be tested to the above mentioned criteria to ensure pure and clean drinkable water.

Above parameters for the project will be tested from iLiL company and has again been confirmed this week (13-03-2025).



**6.. Environmental assessment**

**6.1. What are currently the greatest environmental threats to local land, air, water resources and**

**the ecosystem ?**

Post-Earthquake Debris:

The recent earthquakes could have left a significant amount of debris, which could pose a threat to both land and water resources. The removal and disposal of this debris can lead to soil contamination and water pollution if not managed properly. As we are now already 2 years after the earthquakes the risk for the negative effects of this contamination will be minimalized and the committee is convinced that the water quality we get in the schools can be managed with the installation of the water purification systems.

Water Resource Contamination:

The improper disposal of debris and waste from the earthquake can contaminate local water sources. This includes potential leaching of hazardous materials into groundwater and surface water.

As we are not taking water from local sources fo groundwater this risk is managed. Only water distributed via the official water distribution channels will be filtered in the purification systems.

Air Quality Issues:

The demolition and reconstruction activities following the earthquake can lead to increased dust and particulate matter in the air, affecting air quality and posing health risks to the local population.

Due to the fact that the earthquake is now 2 years behind us this risk is minimized.

Loss of Biodiversity:

The destruction of natural habitats due to the earthquake and subsequent construction activities can lead to a loss of biodiversity. This includes the displacement of wildlife and the destruction of plant species.

As the region of Nurdagi is a very rural region, this risk is managed by the biodiversity in Nurdagi.

Soil Erosion:

The removal of vegetation and the disturbance of soil during reconstruction efforts can lead to increased soil erosion, which can further degrade land quality and affect agricultural productivity. The committee is convinced that this is not the case in the region of Nurdagi.

The committee is convinced that these threats are countered and will ensure the long-term health of the environment in the Nurdagi region.

**6.2. List any cultural practices that are relevant to the project (such as agricultural techniques or traditions)**

In the Nurdagi region, cultural practices related to water use are deeply rooted in the community's traditions and daily life. Some notable practices are listed below:

**Agricultural Practices**:

Irrigation Techniques: Traditional irrigation methods, such as the use of canals and ditches, are common. These methods are designed to efficiently distribute water to crops, reflecting the community's reliance on agriculture.

**Household Water Use**:

Rainwater Harvesting: Many households practice rainwater harvesting to supplement their water supply. This involves collecting and storing rainwater for various uses, including drinking, cooking, and irrigation.

Religious and Spiritual Practices:

Ablutions: In Islamic traditions, water is used for ritual purification (Wudu) before prayers. This practice emphasizes the importance of cleanliness and the sacred nature of water.

**Community Gatherings**:

Festivals and Celebrations: Water often plays a central role in local festivals and celebrations. For example, water may be used in rituals to bless the community and ensure a good harvest.

**Conservation Efforts:**

Water Conservation: There is a strong cultural emphasis on conserving water, especially in times of scarcity. This includes practices such as fixing leaks promptly and using water-saving techniques in agriculture and daily life.

These practices highlight the community's respect for water as a vital resource and their efforts to use it sustainably.

**6.3. What positive and negative environmental changes do you expect to result from the project?**

**Positive Environmental Changes :**

* Reduction in Water Pollution:

Solar-powered water purification systems can significantly reduce the reliance on chemical-based purification methods, thereby decreasing the risk of water pollution.

* Lower Carbon Footprint:

These systems utilize solar energy, which is a renewable resource, leading to a reduction in greenhouse gas emissions compared to traditional energy sources.

* Sustainable Water Supply:

By providing a reliable source of clean water, these installations can help maintain the health of local water bodies and ecosystems.

* Energy Efficiency:

Solar-powered systems are energy-efficient and can operate independently of the grid, reducing the overall energy consumption and strain on local power infrastructure.

**Negative Environmental Changes :**

* Resource Extraction and Manufacturing:

The production of photovoltaic panels involves the extraction and processing of raw materials like silicon, which can lead to habitat destruction, soil and water pollution, and significant energy use.

* Waste Management:

At the end of their lifecycle, solar panels can pose disposal challenges. Improper disposal can lead to the release of toxic substances like cadmium and lead into the environment. But many recycling projects are giving positive hopeful solutions for the future. By developing these solutions and getting to the end of life of these solar panels, this problem will be solved by then.

* Water Use in Manufacturing:

The manufacturing process of solar panels requires substantial water use, which can contribute to local water scarcity if not managed properly.

* Land Use:

Installing solar panels requires space, which might lead to land use changes and potential habitat disruption. In this case the solar panels will be installed on the surface of the schools and is not giving any problem in that sense.

Overall, while the positive impacts of photovoltaic water purification systems are substantial, it is essential to manage the negative aspects through sustainable practices and proper planning. This approach will help maximize the benefits while minimizing the environmental footprint.

**7. Conclusions of the assessment team**

After the many visits that the committee has paid to the Nurdagi region and the many meetings that have been held with the Mayor of Nurdagi and his deputy and after the extensive tests concerning the water quality in the 34 selected schools, it is clear that an investment in 34 water purification installations will be extremely important and urgent to help the students to focus more on their studies and increase their chances to have a better education. They will obtain their diploma in a shorter time and increase the welfare in the region of Nurdagi.

The help of the Mayor and his deputy were very helpful and we are convinced that the cooperation between the committee and the schools will lead to a big success of the project.

Both Rotary clubs would encourage the Rotary International Foundation to support this project for all the reasons mentioned above. We are convinced that the name of the project : We Heal Together is a self-fulfilling prophesy where the goal of the project is going much further and above the borders of the different religions of Christianism and Moslim religion. It will help peace and understanding between both religions and their communities while working together to achieve the same goal !

We truly hope to get the full understanding and support of Rotary International for this project.

--------------------------------------------- taslak, çocukların yaptığı resimler, karanlık, siyah içeren bir resim

Yapay zeka tarafından oluşturulan içerik yanlış olabilir.18.03.2025

Nicolas Douchy Mustafa Güler

Rotary Club Izegem Rotary Club Kavaklik Gaziantep