

Clean Coast Project: Facts And Figures



Acre coast. Photo: Ilan Malester



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M Measuring the results of the "Clean Coast" project

Aim of the Project: Cleaning up Israel's open, undeclared beaches – with no lifeguards and no swimming – and keeping them clean.

Length of Undeclared Coastline: About 125 kilometers along the Mediterranean and Red Sea coasts.

Cost: Three million shekels a year for a three-year period, with joint financing by the Ministry of the Environment (70%) and local authorities (30%).

Method: The environmental problem solving approach to identify the problem, analyze it and find ways to "fix" it.

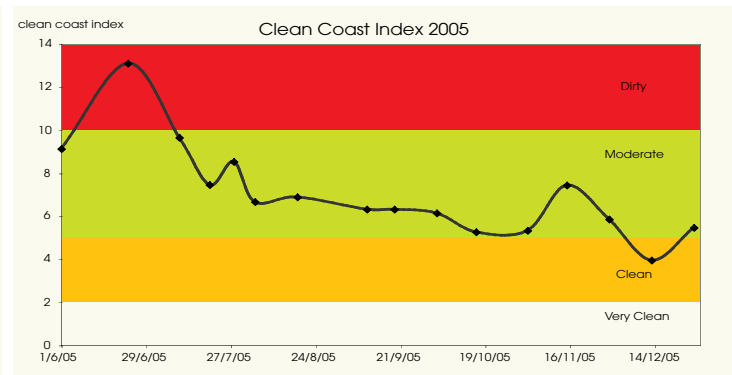
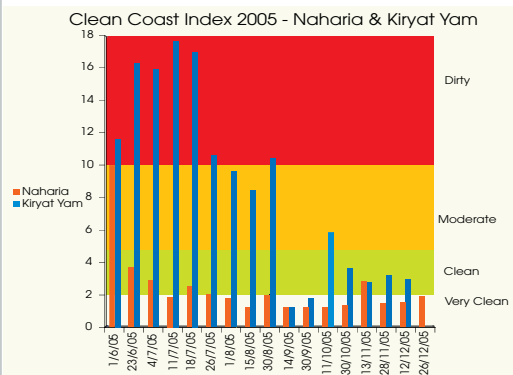
Components: Cleanups by local authorities, information and publicity, enforcement and education.

Participants: Ministry of the Environment, local authorities, Nature and Parks Authority and the public. A special cadre of trained "Coast Watch" volunteers takes part in enforcement and information activities.

Cleanliness Indicators: Clean Coast Index, based on the number of plastic pieces left on the beach.

Results: Half of the beaches showed improvements six months after the initiation of the project, in comparison to the baseline index of June 2005.

Publicity: Updated information on each beach is available in Hebrew on the website of the Ministry of the Environment.

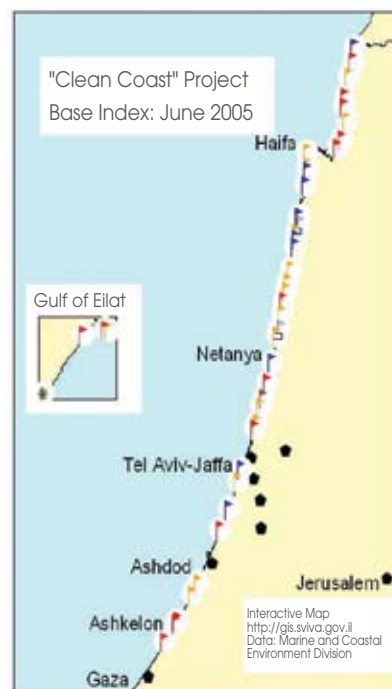
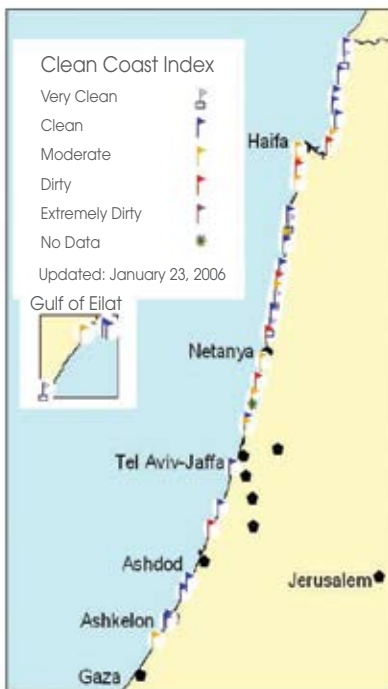


Clean Coast Index

The Ministry of the Environment publishes up-to-date information on the cleanliness level of undeclared beaches along the Mediterranean and Red Sea coastlines. An interactive map in Hebrew on the ministry's website presents bimonthly information on every undeclared beach using different colored flags:

- White flag - very clean
- Blue flag - clean
- Orange flag - moderate cleanliness
- Red flag - dirty
- Black flag - extremely dirty

By clicking on a flag, the surfer also accesses an ID card about the beach, including photos and information on coastal length, general description, ecological assets, access and more.



On The Clean Coast Project Rani Amir



Director, Marine and Coastal Environment Division

Why did the Ministry of the Environment decide to launch the Clean Coast Project?

We came up with the idea for the project a few years ago, in 2002, when we realized that no one was taking responsibility for the litter problem along the Mediterranean coastline. It's as if we were sucked into a vacuum where no one else was doing anything. While coastal cleanups are the responsibility of municipalities and the Ministry of the Interior, we could not stand idly by and watch while litter continued to accumulate on our coastline.

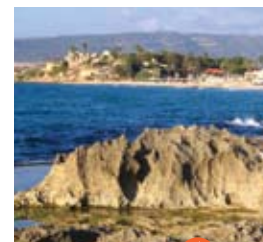
We also knew that litter on the coast originates from two sides – the marine side and the land side. We recognized that we could not control the litter that is deposited on the coast from the open sea – it is simply not feasible – but we **could**

do something about the litter left behind by the public and about the litter that is washed ashore. We concluded that we had to initiate a project which, among other things, would ensure that we clean up our coastlines in the same way that we clean up our homes – all the time!

The Ministry of the Environment initiated coastal cleanups before. How is this campaign different?

We were looking for a comprehensive solution to the problem. Therefore, we decided to implement the environmental problem solving approach (EPS – based on guidelines developed by Prof. Malcolm Sparrow of Harvard University) to identify the problem, analyze it and tailor a measurable solution to it. We began by identifying the result

Within six months 54% of Israel's undeclared coastline measured "clean" to "very clean" and 50% was cleaner than in June 2005



Photos: Ronen Alkalay and Ilan Malester

We must clean up our coastlines in the same way we clean up our homes – all the time!

the project is largely implemented by the educational centers of the Nature and Parks Authority, which invest major resources in educating the younger generation about the importance of coastal protection in all aspects.

The third pillar is communication and information.

We launched a public campaign – whose motto may be loosely translated as "Going for a Clean Coast" (literally Walking on a Clean Coast). To assimilate the message, we funded public service announcements on television and radio, paid for advertisements in the media, and hired a media consultant. We also made sure that there was a major presence of Marine and Coastal Environment Division and Nature and Parks Authority inspectors on the coasts during seven summer weekends in order to explain the goal of the project to the public and to distribute garbage bags. Shirts and Frisbees were given to members of the public who displayed environmentally responsible behavior.

We also trained a special group of volunteers to participate in our efforts. This group of 35 sea-loving, environment-oriented volunteers, known as the "Coast Watch," has proved extremely effective: meeting with beach-goers, patiently explaining the importance of beach cleanliness, and taking part in cleanliness assessments. I believe they have a high potential to increase social and community involvement and awareness.

The fourth pillar is enforcement. Both the Ministry of the Environment and the Nature and Parks Authority take action against individuals who litter the beach and against local authorities which do not clean their beaches.

What are the results in the field?

To date, 21 local authorities, including Eilat, are implementing the project. We initiated

that we wanted to achieve – clean coasts – and then came up with a method to measure this. In the past, our cleanup campaigns were sporadic. This time, we carefully analyzed what needed to be done. We realized that the public is simply not interested in how many bags of garbage or how many tons of garbage are collected during cleanup campaigns. **What is important to the public is the bottom line: the cleanliness of the beach – c'est tout!** Around this desired outcome, we crafted a solution.

The problem solving approach requires measurable results. How do you measure the success of the project?

We developed an objective and measurable formula, a clean coast index, to tell us whether the coast is clean or dirty. Since we knew that the main component of waste on the coast is plastic, which constitutes at least 80% of all waste on the shoreline, we used plastic as a cleanliness indicator. We based our index on the number of individual plastic pieces – from bottle cap size to larger items – on a given stretch of undeclared beach. We then scored each beach based on the number of plastic pieces found. For example, a score of less than 5 means a "very clean" beach; a score of 10-20 means a "dirty" beach.

We continuously follow up on the cleanliness level because beach conditions are dynamic and litter is transported from beach to beach and from sea to beach. The idea is to remain updated and to inform the public. Therefore, the clean coast index is published on our website. The results are updated bimonthly and are open and transparent to all.

What are the main components of the project?

The first pillar of the project is local authority responsibility. Local authorities are legally bound to clean up beaches in their jurisdiction and do this for their declared beaches. However, since we knew that financial difficulties hampered their ability to continuously clean up and maintain their undeclared beaches, we decided to participate in the project.

The second pillar is long-term education. Our goal is to educate the next generation – youth groups, soldiers and schoolchildren. This part of

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Cleaning Eilat's beach. Photo: Keren Mizrachi

Zohar Shkalim

On The Environmental Problem Solving Approach

enforcement measures against those municipalities that initially opted not to join and not to clean. For example, Acre, which was originally reluctant to join the project, made major progress when it was served with a warning prior to a cleanup decree from the Ministry of the Environment. In almost no time at all, its cleanliness index went up from "extremely dirty" to "clean" or "very clean." On the last week of January 2006, the index showed that 54% of our open, undeclared coastline measures "clean" to "very clean," and 50% of the coastline is cleaner than it was at the beginning of the project in June 2005.

What are your major conclusions and expectations?

The clean coast index confirms the volatile condition of our beaches, which can change overnight, as substantial quantities of litter wash up from the sea. This reinforces the need for continuous cleanups and visibly demonstrates the fact that the environment knows no borders.

If we are to guarantee a clean and open coastline over time, we cannot afford to stop cleaning and, at the same time, we need to continue our educational work, public campaigns and enforcement. Since coastal cleanups are not our direct responsibility, I hope that within two to three years, the cleanliness message will infiltrate, so that the momentum will continue. At that time we would like to see the Ministry of the Interior, other relevant ministries and especially local authorities take responsibility for the continuation of the project.

My vision is simple: if everyone just takes care of their own litter and if municipalities acknowledge their responsibility, the beach litter problem will drastically lessen, or even disappear. I would also like to convey the message to the other parties to the Barcelona Convention that the simultaneous launching of this program or one similar to it throughout the Mediterranean basin would contribute most significantly to solving the litter problem.



Director, Enforcement Coordination Division

The Enforcement Coordination Division is responsible, among other things, for integrating the environmental problem solving approach into selected projects in the Ministry of the Environment. One of these – collecting used oil filters from garages for recycling – has already met with major success. We managed to increase the number of garages which collect used oil filters from a few dozen to 1,300 and the number of oil filters which are annually collected from 14,000 to 1.5 million.

Today, we are expanding the approach to other projects, including minimization of brine discharge into the environment from such sectors as hospitals and the food industry and safe disposal and treatment of construction and demolition waste. The brine project should help solve the problem of sewage salination in Israel where effluent recovery for agricultural purposes is so important, while the construction waste project should facilitate a solution to one of the country's most widespread solid waste problems - improper disposal of construction waste.

Yet, without doubt, our greatest success is the clean coast project. We chose to concentrate on the litter problem on our beaches for two interrelated reasons: First, we recognized that our coastline, which includes wide stretches of undeclared beaches, is a public resource which must be accessible and attractive to all sectors of the population. Second, we realized that previous coastal cleanups simply did not make a long-term difference in the cleanliness level of our beaches.

In examining the problem, we discovered that local authorities would not – or could not – take sole responsibility for cleaning up undeclared beaches within their jurisdiction. Rather than taking an antagonistic or an adversarial approach, we opted to "push" local authorities into accepting their responsibility by offering to fund 70% of the cleanup costs – but with a string attached: that beach cleanups will be thorough, methodical and frequent.

By working with the stakeholders rather than against them, we achieved very encouraging results. Most of the coastal local authorities have joined the project and, as demonstrated by the clean coast index, the cleanliness level has definitely improved in comparison to the baseline index. However, we did send warnings to six municipalities and issued cleanup orders to two local authorities – Acre and Kiryat Yam. The results were not long in coming. Acre, for example, took its beach cleanup so seriously that its index went up to "clean" and "very clean" in almost no time at all.

Finally, we closed the circle with a massive information campaign in the media and information and education weekdays on the beaches, with the aid of marine inspectors and a volunteer "Coast Watch."

Not only did these integrated activities make a real difference in the cleanliness level of our open beaches, but, even more importantly, local authorities began to recognize their responsibility for keeping their undeclared beaches clean, something which was far from self-evident at the beginning of the project. We hope to see the same level of cooperation in 2006 as we did in 2005.