





A SNAPSHOT IN TIME - BEACHES PAST AND PRESENT

SANDWATCH 2014 PHOTO COMPETITION









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Introduction

The beach environment is one of the most dynamic ecosystems, changing over tidal cycles, weeks, seasons, years and millennia. Changes are due to a combination of natural causes such as high wave events, human actions such as building on the beach, and climate change resulting from increased greenhouse gases.

The Sandwatch programme started in 2001 and is now active in more than 30 countries worldwide, especially small island developing states. Sandwatch is a volunteer network of children, youth and adults working together to monitor and analyse changes in their beach environment. The Sandwatch network use a standardized scientific methodology, described in detail in the Sandwatch Manual now available in four languages (Sandwatch: Adapting to climate change and educating for sustainable development. 2010. UNESCO, Paris. Available at www.sandwatch.org). Sandwatch groups monitor their beach characteristics, analyse their results, share their findings with the wider community and then take action to (a) address beach issues, (b) enhance their beach environment and build resilience to climate change. The Sandwatch approach can be summarised in the acronym M.A.S.T: Monitoring, Analysing, Sharing the findings, and Taking Action.

Sandwatch is coordinated by the non-profit Sandwatch Foundation, and supported by the United Nations Educational, Scientific and Cultural Organization (UNESCO) and other organizations.

In 2013 the Sandwatch International Database was launched (https://sandwatchdb.org/beachdata/). The database provides Sandwatch groups with a safe site to store their maps and photos, enter their data, and view tables and graphs showing how the beach changes over time. The database represents an important historical archive of beach changes at specific locations that can be shared globally and in time will make a contribution towards global climate change assessments.

In order to introduce the Sandwatch International Database to Sandwatch Groups around the world, the **Sandwatch 2014 Photo Competition: A Snapshot in Time** - **Beaches Past and Present** was held between July and December 2014. Entrants to this competition were asked to upload their entries on the Sandwatch International Database. The competition results were announced in January 2015. This document compiles the entries and describes the outcomes of the competition. The competition was supported by the Sandwatch Foundation and UNESCO.



The Competition

The competition was launched on 1st July, 2014 and ran until 1st November 2014. Sandwatch schools and youth groups were invited to enter this competition and record for the world how beaches have changed over the past 20 years using photographs. (No entries from individuals were accepted).

Understanding how beaches change over the years provides important background information as to how beaches might change in the future as a result of man-made changes, climate change and climate variability. Photographs of beaches and coasts are an important tool that can provide useful information about past changes.

Entrants were asked to prepare and upload on the Sandwatch International Database the following materials in English, French or Spanish:

- 1. Two photographs of the selected beach taken on or before 1994.
- 2. A short description (maximum length 500 words) describing how the beach looked in these photos from the past.

 They were advised to interview residents and family members and get quotations about how the beach was in the past.
- 3. Two photographs of the same beach taken in 2014.
- 4. A short description (maximum length 500 words) describing how the beach has changed over the 20+ years period and the likely causes of the observed changes. This may be based on interviews with residents, beach users and developers; research and consultation with organisations involved in managing the beach e.g. planning department, fisheries department, meteorological office or others.

Groups in countries with limited internet access were advised to contact the Sandwatch Foundation for assistance with uploading their entries.

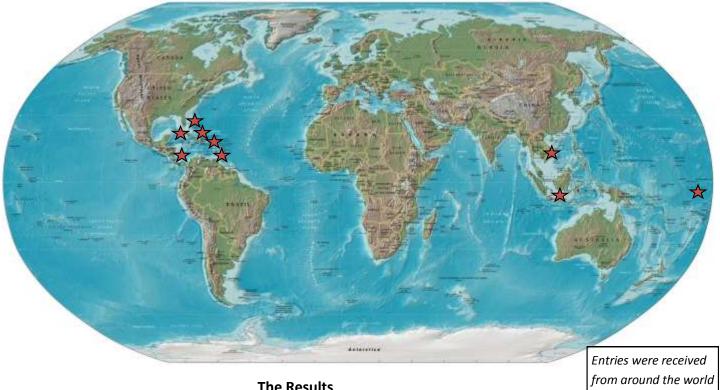
Twenty one completed entries were received from nine different countries covering Asia, Caribbean, Indian and Pacific Oceans. (The participating countries were: Bahamas, Colombia, Cuba, Indonesia, Kiribati, Puerto Rico, St. Vincent and the Grenadines, Turks and Caicos Islands, and Vietnam). All entries were all of very high quality making the judges' task extremely difficult. The entries illustrated the huge range in beach and coastal environments and how they change over time as a result of man's actions and Nature. All entries can be viewed in full on the Sandwatch International Database and if you would like a username and password to view the entries, please write to sandwatchdatabase@gmail.com

Entries were reviewed by an independent panel of judges based on the following criteria:

- To what extent do the photos show the beach in the past
- To what extent do the photos show the same beach in the present
- To what extent does the written section describe how the beach looked in the past and present
- To what extent does the written sections explain the differences in the beach between the past and the present
- How complete is the entry as a whole and are there any special aspects of the entry that should receive extra
 points







The Results

In the primary school (ages 7-12 years) group two schools tied for first place:

- 1. Escuela Primaria Ormani Arenado, Cuba for their entry at Santa María del Mar
- 2. Escuela José Rodriguez de Soto, Puerto Rico for their entry at Balneario Caña Gorda Each school received a prize of USD 750.00

In the secondary school group (ages 13+ years) two groups tied for first place:

- 1. Indonesian Green Action Forum Youth group for their entry at Blebak Beach
- 2. Bequia Community High School, St. Vincent & the Grenadines for their entry at Belmont Beach Each group received a prize of USD 750.00

The judges made special mention of the efforts of the following groups:

- Hope Town Primary School, The Bahamas, whose description of their efforts to rehabilitate eroded sand dunes was highly commended.
- Escuela Primaria Giraldo Aponte Fonseca, Cuba, whose description of the changes at Sierra Mar beach was outstanding.
- Brooks Hill Bilingual School, San Andres, Colombia, whose photos and description clearly illustrated the serious issues at San Luis.
- Nguyen Thi Minh Khai GHS, (Class 12A9) Vietnam, whose interview with residents at Mo O beach was particularly interesting.

And finally a special "thank-you" to one individual, Delia Vera Medina, Coordinator of the UNESCO Associated Schools Project network in Cuba. Her outstanding efforts resulted in Cuba submitting the highest number of entries to the competition.



Compilation of Entries

The following pages show a summary of each entry with one photo of the beach in the past and a summary of the description, and one photo of the beach at present and a summary of the description. Note that in the interests of space the written descriptions have been reduced in length in many cases.

The entries in their full entirety can be viewed on the Sandwatch International Database https://sandwatchdb.org/beachdata/. Access to the database can be obtained by sending an email to sandwatchdatabase@gmail.com.

Compilation of Entries (Country—Beach):

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Lodge Beach, Abaco, The Bahamas—Hope Town Primary School





Clean, Green, Pristine—Part 1 Our Beach Prior to 1994:

The biggest human impact to the Hope Town Harbour Lodge beach up to 1994 was footprints. Most residents relied on the sea for their livelihood and often combed this beach for human created drift debris that could be reused at home, but having not had a hurricane since 1965 made such debris a rare find. Little cruise ship and deep sea fishing traffic meant less garbage also.

Longtime resident, founding family descendent and respected retired Methodist Minister, Mr. Vernon Malone recalls the beach being mostly clean, with wide dunes and a high degree of flora, including bay cedar, coconut palms, prickly pear, buttonwood and casuarinas. There was less width to the beach as a result of this and the dunes served as the settlement stronghold against high winds and waves, as homes were mostly built behind the dune ridge.

Before 1994 it is fair to say that human impact to the beach was significantly minimal and that most change occurred through natural events, such as the rare impact of a hurricane and the ever present shift of sands along the coast. From all accounts the beach, inclusive of the marine ecosystem connected to it, was still quite pristine and used for a sustainable livelihood that marked life in Hope Town up to that point.



Lodge Beach 2014

Little Hands, Big Difference—Part 2 Our beach after 2014:

In 1999, Floyd, a category five hurricane, ravaged the beach. The dune was almost washed out entirely. As a result of this storm, the government gave concessions on imported building goods to encourage the rebuilding of homes. Permits were granted to build along the dune ridge, as most foreigners wanted an ocean view. With few requirements made toward the stability of the dune, and none to replanting of native flora, pillar columns were driven deep into the sand and bulkheads were constructed.

Although another powerful hurricane in 2012 proved too much for even the planted dune, carving the dunes out again, the resolve of the children of Hope Town Primary School could not be moved. They again planted the dune, which withstood yet another powerful hurricane, Irene, the following year.

Gary Richardson, the beachside bartender at the Lodge for the last sixteen years, has seen first-hand the changes that have occurred on this beach. Added to the construction destruction, he watched the visitor traffic increase over the years and has seen increased cruise ship and offshore fishing. But he has also seen the efforts of the school children, over the years, watching them plant and replant, do clean-ups. He has seen their activity make positive change and remains hopeful. This is their home, their future, and they are taking care of it.





San Andres, Colombia - Brooks Hill Bilingual School



San Luis, 1994

Playa San Luis, 1994:

Hemos seleccionado la Playa de San Luis o Del Paso, como se conoce popularmente por considerar que es una de las más afectadas por el efecto del cambio climático.

20 anos atrás era una playa muy extensa. Se inicia desde el patio de la iglesia católica de Sound Bay hasta Elsy Bar. Su arena era de color rosado, la llamaban Rouse Cay. Sobre ella crecían cocoteros, plantas rastreras ornamentales, lavander, baysider y se encontraban algunas casas y chozas habitadas por personas raizales.

Por la extensión de estas playas se podían realizar múltiples actividades como: carrera de caballos, voleibol, raqueta, etc. Era la playa predilecta para los turistas, paseos familiares y escolares —era nuestra playa-

San Luis Beach, 1994:

We selected the San Luis Beach as it is known locally because it is considered one of the most affected by the impact of climate change.

20 years ago it was a very long beach. It started from the courtyard of the Catholic Church Sound Bay to Elsy Bar. The sand was pink, they called Cay Rouse. On it grew coconut trees, ornamental creepers, lavender, Baysider and there were some beach houses and huts inhabited by native islanders.

The beaches were also used for multiple activities such as horse riding, volleyball, etc. It was the favorite beach for tourists, family outings and school outings - it was our beach.



San Luis, 2014

Playa San Luis, 2014:

A diferencia de 20 años atrás, la playa de San Luís ha perdido mucho de su extensión en cuanto a su anchura. La vegetación que se encontraba en ella desapareció en su mayor parte. Las casas y chozas que eran habitadas por raizales también desaparecieron.

Su deterioro se debe en parte a que en un tiempo se permitió la extracción de arena para la construcción de casas, hoteles y edificaciones en general. Se tenía la idea de que era un recurso inagotable. Otro motivo ha sido la erosión debido a la tala de la vegetación que existía en ella, la arena era arrastrada con facilidad por las olas y las mareas altas debido a que no tenía como sostenerse.

La diferencia entre el antes y el después de La Playa de San Luis salta a la vista. Hoy los visitantes o turistas son los más beneficiados por lo poco que ha quedado de ella. Los Raizales, hemos tenido que emigrar a otras playas. Vemos con mucha tristeza como la mano del hombre y la fuerza de la naturaleza está acabando con un tesoro para nuestra isla, como son sus playas, especialmente ésta a la cual nos hemos referido.

San Luis Beach, 2014:

Unlike 20 years ago, San Luis beach has lost much of its length and its width. The vegetation has mostly disappeared. The houses and huts that were inhabited by native islanders have also disappeared.

Its decline is due in part to a long history of sand mining for construction of houses, hotels and buildings in general. The idea was that it was an inexhaustible resource. Another reason has been the erosion due to clearing of vegetation that existed; the bare sand was easily swept by waves and high tide because there was no vegetation to hold it.

The difference between the before and after at San Luis beach is obvious. Today visitors and tourists still use the little that is left. The native islanders go to other beaches. We note with great sadness as man's hand and force of nature is destroying one of the treasure of our island, its beaches, especially this one.





Guanabo, Cuba—Escuela Primaria Don Mariano Martí y Navarro



Guanabo, 1980

Playa Guanabo, 1980:

Al Este de la Habana se encuentra ubicada la playa de Guanabo. Según datos históricos de los primeros años del siglo XIX existían un sistema de estuario compuesto por lagunas costeras, bosques de manglares, encantadoras playa, con elevadas dunas, pastos sumergidos, arrecifes en una superfície aproximada de 2000 hectáreas y una longitud de casi 10 kilómetros.

Al transcurrir los años la población fue aumentando más del doble respecto a los inicios del siglo, debido a planes de desarrollo por el gobierno colonial para el poblamiento de la isla con personas blancas siendo su principal núcleo la de origen canario.

A partir de la segunda década del siglo XX es que esta zona adquiere valor y comienza el fomento de repartos con la construcción de viviendas permanentes y de recreo. Así comienza la devastación de los recursos naturales este comprende las lagunas, bosques de mangles, dunas y barreras de coral, esto comenzó a partir del río de Guanabo de este a oeste.

Después de 1959 se paraliza la construcción de viviendas y se efectúa la nacionalización de los hoteles, restaurantes, centros nocturnos y comienzan los planes turísticos para el disfrute de la población.

Guanabo beach, 1980:

Guanabo beach is located east of Havana. According to historical data from the early nineteenth century there were coastal lagoons, mangrove forests, a lovely beach, with high dunes, reefs and grasses covering approximately 2000 hectares and a length of almost 10 kilometers.

From the second decade of the twentieth century the area increased in value and construction of permanent housing and recreation facilities started leading to destruction of natural resources including the lagoons, mangrove forests, dunes and coral reefs.

After 1959 the housing construction stopped with the nationalization of hotels and restaurants, and tourism plans for the enjoyment of the population.



Guanabo, 2014

Playa Guanabo, 2014:

A partir del año 1980, muchas de las instalaciones y viviendas fueron desapareciendo a causa del deterioro del tiempo y la cercanía del mar el cual ha ido avanzando y también ha provocado la pérdida de 1m de playa cada año.

En las fotos, se puede apreciar la pérdida de la franja de arena por el avance del mar, ya las sombrillas no existen, los palos que las sostenían han quedado sumergidos en el mar, los cocoteros están a un metro y medio aproximadamente de la orilla de donde rompe las olas, tampoco existen los quioscos de ventas gastronómicas.

En los últimos años se han realizado grandes esfuerzos gubernamentales por preservar las playas, sobre todo desde la promulgación en el año 2000 del Decreto- Ley No. 212 para la Gestión de la Zona Costera.

La Educación Ambiental constituye una herramienta eficaz para tratar de lograr que el hombre aprenda a vivir en armonía con la naturaleza y a su vez que la actividad socioeconómica tenga un impacto mínimo sobre la fauna, flora y el entorno en general.

Guanabo beach, 2014:

Starting in 1980, many of the facilities and homes were disappearing because of deteriorating weather and proximity to the sea which had progressed inland at a rate of 1m every year.

In the photos, you can see the loss of the strip of sand as the sea advanced inland, and there are no umbrellas. The palm trees are about a meter and a half from the shore where the waves break, and there are no sales or dining kiosks.

In recent years there have been major government efforts to preserve the beaches, especially since the promulgation in 2000 of Decree Law No. 212 for Coastal Zone Management.

Environmental education is an effective way to ensure that man learns to live in harmony with nature and in turn that socioeconomic activities have minimal impact on the fauna, flora and the environment in general.





La Boca, Trinidad, Cuba — Escuela Primaria José Mendoza Garcia



La Boca, 1994

Playa La Boca, 1994:

La playa La Boca está situada al sureste de la ciudad de Trinidad, a 378 km de la capital del país La Habana. Su territorio tiene una extensión de 2km² y su población es de 198,700 habitantes. En época de playa (abril-septiembre) se duplica la cantidad de personas que la visita. Es muy apreciada por el turismo nacional e internacional a pesar que aún sus condiciones higiénicas no son las más satisfactorias el estado cubano y el gobierno de la localidad llevan a cabo un plan de acciones para mejorar en esta situación.

Al conversar con los vecinos de la localidad se plantea que en dicha playa existían corales y un arrecife limpio que servia de hábitat a los animales pequeños. Los cuales con el vertimiento de petróleo en el mar y objetos que demoran años en descomponerse lanzados al agua por el hombre han ido enfermando estos arrecifes. Los corales son dañados por el uso de los chinchorros que a su vez provocan la extinción de las especies marinas ya que dañan sus crías.

La Boca Beach, 1994:

La Boca beach is located southeast of the city of Trinidad, 378 km from the capital Havana. Its area covers an area of 2km^2 and has a population of 198,700 inhabitants. In the season (April to September) the number of people visiting doubles. It is much used for national and international tourism although its hygienic conditions are not up to standard and the Cuban state and government of the town prepared an action plan to improve this situation.

In talking with local residents it appears the beach was clean and there were coral reefs that served as habitat for small animals. With the dumping of offshore oil and objects that take years to decompose the reefs have deteriorated. The corals are also damaged by the use of seine nets which in turn cause the extinction of marine species.



La Boca, 2014

Playa La Boca, 2014:

A diferencia de las otras fotos se puede observar en estas la transformación de la playa a través del paso de los años. Algunas realizadas por la naturaleza como lo es la disminución del nivel del mar debido al calentamiento global y aumento de las temperaturas, factores que influyen debido al cambio climático. Cuando las personas fregan los barcos en el mar estos residuos son arrastrados por las corrientes litorales y las olas llegando a la orilla y dañando los arrecifes y estos a su vez el hábitat de animales marinos pequeños. Otro factor que influye en nuestras costas el trato indiscriminado de los animales o desaparición de las especies provocando la extinción de los mismos.

En estas fotos las arenas ya no son blancas sino que han tomado un color grisáceo y la disminución de la misma provocadas por la erosión. Principal causante el hombre ya que extrae este recurso para la construcción. El agua no es limpia y cristalina como otros años. En experimentos realizados en el proyecto logramos comprobar el alto grado de contaminación que tiene nuestra playa. Ahora en estos años se han ido incrementando el turismo. Esto coincide con los danos y contaminación observada.

La Boca beach, 2014:

The photos show the changes in the beach through the passing years. Some caused by climate change such as the increase in sea level due to global warming and rising temperatures. When ships clean their tanks at sea, the residues are carried by longshore currents and waves reaching the shore and damaging the reefs and in turn the habitat for small marine animals resulting in their disappearance and extinction.

In these pictures the sands are not white but a grayish color and the beach has eroded. Man is the main cause through the extraction of sand. Another harmful impact to our shores is the toxic waste from the local area, resulting in bacteria that live in marine waters and target man himself. The water is not crystal clear like other years. In experiments carried out in the project we see the high level of contamination that has affected our beach. 20 years ago there were no social transformations that reduced the beach space. In recent years there has been increasing tourism development of national and international tourism as it is a beach frequently visited. This matches the damages and pollution observed.





La Casona, Cuba—UCP Félix Varela Morales



La Casona, 1993

Playa La Casona, 1993:

El Consejo Popular Isabela de Sagua se caracteriza por ser una zona costera que posee, según criterio de sus pobladores, tres zonas de playa destinadas al baño entre ellas: La casona (108 m). En tiempo de verano, la cantidad de bañistas supera el total de la población, dado que reciben la afluencia de personas de Sagua la Grande. La playa en esta fecha no muestra mucha contaminación. A simple vista, no hay restos de basura, escombros, plantas y animales muertos. El agua parece clara y no hay mucho oleaje. La construcción del muelle es evidente que no ha tenido efectos negativos, producto de desastres naturales y de la acción del hombre. Hay diferentes rocas y vegetación. Existe una extensión grande de playa y en ella hay arena blanca con algunas muestras de plantas y animales propios de la Zona.

La Casona beach, 1993:

The People's Council Isabela de Sagua is characterized as a coastal area that has three beach areas for bathing. In summer time, the number of bathers exceeds the total population, since there is an influx of people from Sagua la Grande. The beach at this date does not show much pollution. At a glance there are no remains of trash, debris, dead plants and animals. The water looks clear and there is not much swell. The construction of the pier had no negative effects. There are different rocks and vegetation. There is a large expanse of beach and white sand on it with some plants and animals from the area.



La Casona, 2014

Playa La Casona, 2014:

Como se aprecia en las fotos de la playa, existen mayores niveles de contaminación. Hay desechos de basura, plantas y animales en descomposición en la zona donde había arena. En las áreas observadas cuando fueron tomadas las fotografías, se pudo observar gran cantidad de agentes contaminantes al ecosistema marino y costero, botellas de vidrio y plástico rotos en la playa y sus alrededores, residuos de alimentos en descomposición por todo el litoral, presencia de micro vertederos cercanos al litoral e incluso algunos de ellos significativamente próximos al agua; también se observan desechos de construcción (acanaladas de cemento, bolsas plásticas y redes de pescar de nylon, neumáticos y alambres en todos los casos) dentro y fuera del agua. Se percibe gran diversidad de conchas y caracoles (flora y fauna marina). aunque en su gran mayoría, fosilizadas y con un aspecto desagradable y otras en estado de descomposición. En presencia de la marea baja se pudo observar gran cantidad de lodo en el fondo marino con aspecto desagradable debido a su color y fetidez. En comparación con la foto del pasado, el muelle y la construcción dentro del agua se han visto afectados tanto por los efectos ambientales como la acción del hombre.

La Casona beach. 2014:

As seen in the pictures of the beach, there are higher levels of contamination. There are scraps of garbage, decaying plants and animals in the area where there was sand. In the areas observed where the pictures were taken, we observed large amount of pollutants to marine and coastal ecosystem, seen mainly in the drains from houses and pigsties. These pollutants were remains of glass bottles, plastic, rotting food waste along the coastline, and presence of micro dumps near the coast and some of them significantly close to the water. There was also construction waste (corrugated iron, cement, plastic bags, nylon fishing nets, tyres and wires) in and out of the water. There is a wide variety of shells and snails (flora and fauna), although mostly, fossilized and others decaying. At low tide you could see lots of mud on the seabed which is unsightly because of its color and stench. Compared to the last photo, the pier and construction in the water are affected by the action of man.





La Estrella, Cuba — Universidad de Ciencias Pedagógicas



La Estrella, 1994

Playa La Estrella, 1994:

Quien ha visitado la playa La Estrella, puede apreciar que es pequeña al descubierto con una marea baja o bajamar. Situada en una de las primeras ensenadas de la bahía santiaguera en un mar tropical, reluce por sus aguas que se tornan azuladas por la luz solar. No es una playa profunda. Producto de la insolación la temperatura es alta, pero la brisa refrescante tiempla el calor de la tórrida playa.

La Estrella se distingue por ser una playa de arena blanca y fina, que en su composición prevalecen los restos de animales marinos tales como: coral y foraminíferos. Por otro lado, abundan los animales pequeños que habitan bajo la arena y se ven muy pocos encima de la arena. Se pueden hallar caracoles, poliquetos o gusanos anillados, además los moluscos bivalvos. Su vegetación es fija y escasa en la orilla. Abunda la uva caleta y el framboyán amarillo.

Solamente, la playa La Estrella se ponía turbia con los residuos de petróleo cuando pasaban los barcos para entrar y salir del puerto. Formaba parte de su entorno una instalación deportiva donde se albergaban boxeadores y peloteros de alto rendimiento.

La Estrella beach, 1994:

All who visit the beach La Estrella can see that is small and exposed at low tide. It is located in one of the first inlets of Santiago Bay, in a tropical blue sea, lit by sunlight. It is not a wide beach. Temperatures are high but the beach is refreshed by a breeze.

La Estrella is distinguished as a beach of fine white sand, which is composed of the remains of marine animals such as coral and foraminifera. There are many small animals that live in the sand and are very few above the sand. You can find snails, polychaete worms and also bivalve molluscs. Its vegetation is fixed and low on the shore including seagrapes and yellow flame tree.

When passing ships to enter and leave the port, the beach La Estrella becomes turbid due to waste oil. There was also a sports facility where boxers and high performance players were housed.



La Estrella, 2014

Playa La Estrella, 2014:

Después del ciclón Sandy en La Estrella han aparecido piedras, debido a la producción de una marea ocasional más fuerte. También, abundan los sargazos, algas marinas verdes oscuras, restos de corales y las valvas de algunos moluscos

El agua, generalmente, se presenta en estado turbio a partir de la existencia de comunidades costeras como. el Cayo, la Socapa, Barrio Técnico y Ciudamar, otro elemento que agrede y afecta la calidad del agua es el tráfico de embarcaciones que entran y salen de la bahía con destino al puerto Guillermón Moncada, lo que provoca que haya restos de petróleo, de alimentos y objetos desechables, rocas, basuras, escombros, desperdicios varios, preferentemente de plástico . La existencia de la cafetería La Estrella y del restaurant Los Veleros, más la estancia de varios vendedores por cuenta propia en época de verano favorecen, también la contaminación de las aguas de la playa.

A pesar del tiempo transcurrido no ha habido grandes diferencias con respecto a años anteriores, ya que los efectos del cambio climático no han sido tan desfavorables por la posición en que se encuentra la playa La Estrella, esa doncella oculta.

La Estrella beach, 2014:

After Cyclone Sandy, stones have appeared due to the stronger tide. The Sargassum algae, dark green seaweed, remains of corals and shells of certain molluscs also abound.

The water is generally polluted due to the existence of coastal communities, Cayo, the Socapa, Barrio technico y Ciudamar neighborhood. There is also boat traffic into and out of the bay to the port Guillermón Moncada, leaving traces of oil, food and disposable objects, rocks, garbage, debris, various waste, including plastic. The existence of the La Estrella café and restaurant, The Sailboats, plus several beach vendors also adds to the pollution of the waters of the beach.

Despite the time elapsed there has been no major differences from previous years, as the effects of climate change have not influenced the beach La Estrella.





La Laguna del Cura, Cuba—Escuela Carlos Manuel de Céspedes



La Laguna del Cura, 1994

Playa La Laguna del Cura, 1994:

En la década del 90 esta playa lucía su mejor esplendor, pues cocoteros de un verdor intenso bordeaban la orilla de la playa, brindándole al vacacionista una refrescante sombra donde refugiarse del ardiente sol. Especies de aves migratorias y oriundas del país habitaban en los árboles, quienes junto con el sonido que producía el choque de las olas en la orilla, amenizaban con una dulce melodía el lugar. La arena fina era bañada por aguas tranquilas y cristalinas de un profundo azul que permitía, desde la orilla, una visión exquisita del fondo marino en el que habitaban variadas especies como cangrejos, jaibas, langostas, camarones, ostiones y almejas, conformando de esta forma, una abundante fauna marina.

Por la porción oeste de la playa existía un canal construido por el hombre para comunicar las embarcaciones de la laguna con la bahía cienfueguera. A la entrada de la playa encontrábamos un restaurant especializado en mariscos, y que a pesar de la hermosura del lugar, no era muy frecuentado por los bañistas pues su fondo era rocoso.

La Laguna del Cura, 1994:

In the '90s this beach looked its best with intense green coconut trees lining the edge of the beach, giving the vacationer cooling shade and shelter from the hot sun. Species of migratory and native birds lived in the trees, which along with the sound of the waves crashing on the shore, enlivened the place with a sweet melody. The fine sand was washed by calm clear waters of a deep blue sea, giving an exquisite view of the seabed in which dwelt varied species such as crabs, lobsters, shrimp, oysters and clams, thus forming abundant marine fauna.

On the western portion of the beach there was a man-made canal for vessels entering Cienfuegos Bay lagoon. At the entrance to the beach there was a seafood restaurant, and despite the beauty of the place it was not frequented by bathers because of the rocks.



La Laguna del Cura, 2014

Playa La Laguna del Cura, 2014:

Después de 20 años, la playa La Laguna del Cura se encuentra en la misma dirección pero su entorno ha cambiado notablemente gracias a la interacción del hombre, que en su afán de modernizar la sociedad y crear confort, ha contribuido a la aparición de problemas ambientales que influyen de forma negativa en los ecosistemas terrestres y marinos. Sin pensar en los daños colaterales que podía ocasionar, sustituyó los cocoteros por sombrillas para protegerse del sol, corrió la construcción del restaurant hacia la duna de la playa y allí también construyó una cafetería con variada oferta gastronómica. Sin dudas, estas edificaciones favorecen al pueblo trabajador que asiste al lugar para disfrutar del verano. pero al mar no le agradó mucho, pues estas instalaciones vierten sus residuos a la playa, travendo consigo la contaminación de sus aguas que pasaron de un hermoso e intenso azul a un color verdoso y turbio. La diversidad de la vegetación y animales marinos también sufrió daños, pues va no existe ni la mitad de las especies que antes habitaban en la playa, agudizándose más esta situación por la actitud irresponsable de personas que botan al mar desechos sólidos como latas, botellas y basura.

La Laguna del Cura, 2014:

After 20 years, La Laguna del Cura beach is the same but the environment has been significantly changed by the interaction of man, who in his eagerness to modernize society and create comfort, has contributed to environmental problems negatively influencing the terrestrial and marine ecosystems. Without thinking about the collateral damage that could result, the coconut trees were replaced with umbrellas for sun protection, the restaurant was constructed on the beach dune and a cafe with varied cuisine built. Undoubtedly, these buildings help working people enjoy the summer as they visit the beach, but these facilities dump their waste on the beach, bringing pollution of the waters which went from a beautiful and intense blue to a green and murky color. The diversity of vegetation and marine animals also suffered damage, as there are not even half of the species that once lived on the beach. This situation is worsened by the irresponsible attitude of people who throw solid waste such as cans, bottles and trash into the sea.





Playa Baracoa, Cuba—Escuela Camilo Torres







Playa Baracoa, 2014

Playa Baracoa 1959—2014:

A mediados del siglo XVIII se incrementa en la zona la entrada de más esclavos. Se convierte la zona potencialmente económica un eslabón fundamental sobre todo, para la trata negrera. Durante este tiempo se construyen grandes residencias y lugares de recreo, donde la clase rica disfrutaban sus fines de semanas. En la parte más humilde de la población, conocido por La loma, existían casas de guano y yaguas sin piso y sin servicios sanitarios.

Sigue creciendo en su ancho y largo este asentamiento costero y ya es una playa bien definida, exclusiva a la clase pudiente. En el año 1959 la playa poseía una extensión de 25 metros. En la actualidad la playa Baracoa , es una de las más populares de Artemisa. Aunque solo un pequeño tramo del litoral permite disfrutar de la arena, instalaciones como el hotel Baracoa y Villa Victoria, varios ranchones y quioscos ,la convierten en destinos preferidos de muchos jóvenes de nuestra provincia , de la Habana de Pinar del Río y de no pocos turistas extranjeros .

El sitio pudiera ser mucho más atractivo, en consecuencia más frecuentado, sino fuera tan notable la desatención de las área verdes y la presencia de dos micro vertederos y varios salideros cercanos a la villa y al hotel. También ha influido la indisciplina social debido a construcciones realizadas en la línea costera afectando, unido al cambio climático el ecosistema marino del lugar. No existen contenedores para depositar los desechos , ni tan poco hay sistematicidad en la limpieza de las áreas verdes y la recogida de los desechos sólidos. Playa Baracoa precisa de mayor atención . Nos toca a la población mantener nuestro entorno limpio y buscar vías para que el visitante conozca nuestra historia .

Baracoa Beach 1959—2014:

In the mid-eighteenth century there were a alarge number of slaves in this area. The zone was a vital link especially in the slave trade, led by wealthy landowners. Large residences and playgrounds, where the rich owners and millionaire politicians enjoyed their weekends were built. The poor people lived in The Hill in houses thatched with palm fronds.

The area continued to develop as an attractive beach, exclusive for the wealthy. In 1959 the beach had an area of 25 square meters. Today Baracoa Beach, is one of the most popular beaches of Artemis. Although only a small stretch of sand, facilities like Baracoa and Villa Victoria hotel, and several kiosks, make it a popular destination for youth of the province of Havana to Pinar del Río and a few foreign tourists.

The site could be much more attractive, but the green area has been neglected and there are two micro landfills and several outfalls from the villas and hotels. The area has been affected by social indiscipline, construction affecting the coastline, coupled with climate change. There are no containers to collect waste, and there is so little consistency in the cleaning of the green areas and the collection of solid waste. Playa Baracoa needs more attention. It is up to the people to keep our environment clean and seek ways for visitors to know our history.

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Playa Caribe, Cuba—Escuela Adriano Galano Countin







Playa Caribe, 2014

Playa Caribe, 1930—2014:

El municipio Baracoa no está exento de los impactos generados por el cambio climático, aunque hay que reconocer que la aceleración de los referidos impactos recae en los hombros de hombres, mujeres y niños. Estos efectos se observan con claridad en lugares como la playa Caribe.

En el lugar de referencia independientemente que está en la costa norte de Cuba, la que se levanta tectónicamente, hay un afloramiento rocoso provocado por la periodicidad de los eventos hidrometeorológicos (mar de leva) pero con el agravante de la vulnerabilidad a partir de las construcciones en la duna de la playa, que datan desde la época colonial hasta la actualidad, pero que hoy se continua extrayendo arena y se tala furtivamente en el bosque protector del litoral.

Baracoa es tal vez el municipio del país en el que más se evidencia el ascenso del nivel del mar y ello obedece a la influencia de los vientos alisios provenientes del anticiclón del Atlántico norte, en los trenes de olas, lo cual prolonga su alcance en pleamar hacia tierra firme. Esto se intensifica progresivamente como consecuencia del cambio climático al hacer cada vez más más frágiles los ecosistemas costeros, que en el caso de la ciudad de Baracoa sus dos tibaracones están densamente poblados, lo que trae consigo más tarde o más temprano la demolición y reposición de los inmuebles en áreas seguras.

Esta playa posee 2 km. de longitud y el afloramiento rocoso que es cíclico nunca ha excedido los 825 metros.

Caribe Beach, 1930—2014:

Baracoa municipality is not exempt from the impacts of climate change, while recognizing that the acceleration of those impacts falls on the shoulders of men, women and children. These effects are seen clearly in places like the Playa Caribe.

In the reference site which is on the north coast of Cuba, the land is rising tectonically, and there is a rocky outcrop which is impacted by sea swells. The coastal areas is vulnerable as there are buildings dating from the colonial era on the beach dune, sand is continuously extracted and the coastal protective forest is secretly logged.

Baracoa is the municipality where the rise in sea level is evident and is affected by regular wave trains (swells) due to the influence of the North Atlantic High Pressure area and the Trade Winds. These waves reach a long way inland at high tide. The coastal ecosystems are becoming more fragile as a result of climate change. In the city of Baracoa there are two densely populated areas, where sooner or later properties may need to be demolished and relocated to safer areas.

This beach is 2 km long. It has a long and rocky outcrop and shows cyclical changes and has never exceeded 825 m.



Playa Uvero, Cuba—IPVCE Ernesto Guevarra





Playa Uvero, 1940:

Del pequeño asentamiento ya existente para los primeros años del siglo XX no se sabe nada con certeza. Solamente que la pequeña barreada de pescadores y carboneros se ubicaba en la parte derecha del embarcadero. La mayoría de los pobladores se dedicaron a partir de ese momento a la producción de carbón llegando allí desde la Isabela. El año 1939, se confirma el uso y fundación del centro de La Colonia Infantil de Verano se refiere a la mejora de las condiciones naturales del lugar para poder ser utilizado como balneario, ya un poco más sofisticado. La explotación del ferrocarril como medio de transporte y la posible construcción de una carretera que cubriría el tramo de 12 kilómetros facilitaría el arribo de más vacacionistas. En el proceso de ampliación de esta playa se siguieron levantando obras, una de ellas fue Colonia Infantil de Verano. Su ubicación inicial fue en la entrada, junto con las demás casas que allí existían. Los caminos de arena y piedra fueron remplazados por los de estacones, cargaderas y tablas, formando una estructurada red de pasajes para la comunicación entre los vecinos.

Uvero beach, 1940:

In the early 20th century there was a small settlement of fishermen and charcoal burners. Thereafter most of the residents arrived from la Isabela and were devoted to charcoal production. In 1939, records show a Children's Summer Camp and the area became more sophisticated with a spa. With the construction of the railway and the highway more holiday makers came and the Children's Summer Camp was moved to another location. Neighborhoods began to develop behind the beach with some of the houses built on stilts. A network of paths and passages developed.



Playa Uvero, 2014

Playa Uvero, 2014:

El asentamiento "Uvero" forma parte del sistema municipal de asentamientos, clasificando rural. Está conformado por 276 viviendas, posee una población permanente de unos 40 habitantes residentes en 10 viviendas. La Playa Uvero se vio afectada por algunos acontecimientos naturales dificultó el desarrollo de los poblados. Tales eventos fueron los ciclones del 27 de agosto de 1855, el de 1886 y el del 4 de septiembre de 1888, en la historia se conoce como la crisis del 1855-1888. Después de los años 1950, la playa es utilizada como balneario, pero persiste en ella como labor económica fundamental el carbón a partir del manglar. El muro se comienza a construir en principio de los años 60 y sirvió para evitar las contantes inundaciones. Para los habitantes señalan como ha disminuido la presencia de peces en la zona y ya no se puede pescar en el muelle, otro elemento es la aparición del pez León.

Uvero beach, 2014:

The settlement "Uvero" is classified as a rural settlement. There are 276 houses, and a permanent population of about 40 residents in 10 homes. The Uvero Beach was affected by some natural events which hindered the development of the village. These events included the hurricanes of 1855, 1886 and 1888 which were known in history as the crisis of 1855-1888. Most of the houses were destroyed or damaged. After the 1950's, the beach was used as a spa, but the production of charcoal from the mangroves continued. A wall was built at the beginning of the 1960s to keep out the tidal floods. The area has also seen a reduction of the fish catch and breeding grounds as the mangroves have been harvested, and it is no longer possible to fish from the pier. Another element is the appearance of the lion fish.





Santa María del Mar, Cuba—Escuela Primaria Ormani Arenado



Santa María del Mar, 1983

Playa Santa María del Mar, 1983:

La arena de esta playa se formó en el fondo del mar y por eso está compuesta por restos de algas calcáreas, moluscos y foraminíferos que son organismos marinos con conchas carbonatadas. Aunque existieron pocas construcciones en la playa sí fue una característica notable la existencia durante más de 20 años de un bosque de casuarina. Estos árboles además de pertenecer a una especie considerada exótica en nuestro país tienen unas raíces enmarañadas y densas que favorecían la erosión de la playa durante las tormentas, y también impedía la formación de las dunas costeras. Por todo ello la casuarina fue eliminada progresivamente a partir del año 1984.

Después de la eliminación de la casuarina desaparecieron los obstáculos al viento y comenzaron a formarse nuevas dunas. En la Foto B del año 1988 se aprecia que existió un ancho de playa superior a los 30 metros que fue favorable a la formación de pequeños montículos de arena detrás del área de sol o berma de la playa.

Santa María del Mar beach, 1983:

The sand on this beach was formed on the seabed and consists of the remains of marine organisms with carbonate shells such as calcareous algae, molluscs and foraminifera. Although there were few buildings on the beach itself, a casuarina forest existed for more than 20 years. These trees are considered an exotic species in our country, and have a dense tangled root system favoring beach erosion during storms, and also preventing the formation of coastal dunes. Therefore casuarina was phased out from 1984.

After removal of the casuarina trees, the constraints were removed and new dunes began to form. In 1988 the photo shows that there was a band greater than 30 meters which was favorable to the formation of small mounds of sand area behind the beach berm beach.



Santa María del Mar, 2014

Playa Santa María del Mar, 2014:

De haber entrevistado a residentes y miembros de las familias cercanos a la playa, podría decirnos. ¿Qué causas cree usted que pudo haber provocado los cambios en esta playa? Las causas del progresivo y continuo proceso de la playa son:

- Déficit en los aportes de arena desde el fondo del mar.
- Ocupación del área de duna
- Prácticas inadecuadas de reforestación de las dunas
- Afluencia de bañistas que destruyen la vegetación de las dunas costeras.
- Tránsito de vehículos.
- Extracciones ilegales de arena.

La investigación llegó a las conclusiones siguientes; En estas playas la intensidad de la erosión es variable a lo largo de la costa, el máximo retroceso ha sido de 26 metros entre los años 1981 y 2009. Se produce erosión por el oleaje en toda la playa, sin embargo el tramo centro-occidental está afectado también por la erosión por el viento y la arena ha invadido terrenos interiores, afectando viales y algunas instalaciones.

Santa María del Mar beach, 2014:

The students interviewed residents and family members to find out what changes people have seen. The students asked residents what factors caused the changes in this beach? The causes of progressive and continuous deterioration of the beach are:

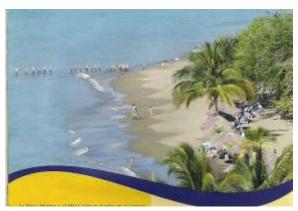
- Less supply of sand from the seabed.
- Development on the dune area
- Inadequate reforestation of the dunes
- Influx of swimmers who destroy vegetation of coastal dunes.
- Transit vehicles
- illegal extractions of sand.

The investigation led to the following conclusions: On these beaches the rate of erosion varies along the coast with the maximum retreat of 26 meters between 1981 and 2009. This was caused by waves, however the west-central section is also affected by wind erosion and as a result sand has invaded the interior land, affecting roads and some facilities.





Sierra del Mar, Cuba—Escuela Primaria Giraldo Aponte Fonseca



Sierra del Mar, 1994

Playa Sierra del Mar, 1994:

La plava que se muestra en la fotografía tiene como nombre playa Sierra Mar, la cual se encuentra situada en la Provincia Santiago de Cuba en el Municipio Guamá, en la localidad de Sevilla. Esta playa corresponde a unos de los hoteles para el turismo tanto nacional como internacional que tiene como nombre el mismo que la playa Hotel Sierra Mar. Según testimonios recogidos a los trabajadores del este hotel y habitantes de este poblado, esta playa como se muestra en la fotografía tenía una extensión de alrededor de 300 metros de largo y 30 metros de ancho todos cubiertos de arena. Según cuentan los trabajadores del Hotel Sierra Mar la playa tenía tanta extensión que el tractor de votar los desechos sólidos giraba en cualquier parte de la playa sin dar marcha atrás y sin salirse de la arena, también pudimos averiguar que debido a la flora marina y la variedad de especies en la playa de aquella época existía una escuela de buceo, la cual ofrecía recreación y entretenimiento a los bañistas.

Sierra del Mar beach, 1994:

The beach shown in the photograph is called Sierra Mar Beach, which is located in Santiago de Cuba Province in the municipality Guama, in the town of Sevilla. This beach has a tourism hotel used both nationally and internationally whose name is the same as the beach, Hotel Sierra Mar. According to testimonies from the hotel workers and inhabitants of this town, this beach as shown in photograph had an area of about 300 meters long and 30 meters wide all covered with sand. According to the workers, Hotel Sierra Mar Beach was so big the solid waste tractor could turn at any part of the beach without reversing and without leaving the sand. We also found that due to the variety of species of marine fauna there was a diving school for recreational use and swimmers.



Sierra del Mar, 2014

Playa Sierra del Mar, 2014:

Después de 20 años, según se muestra en la segunda fotografía, debido al cambio climático y a la acción de los huracanes y tormentas tropicales que han afectado la región oriental podemos apreciar que la playa no es la misma que antes ya que ha desparecido gran parte de la flora que la embellecía que son los cocoteros y uvas caletas, además podemos observar que se ha perdido gran extensión de arena, según testimonios recogidos por trabajadores y habitantes hubo que correr el bar de madera unos 10 metros hacia atrás de donde se encontraba inicialmente, va no tiene sombrillas tapa sol, fue cerrada la escuela de buceo como consecuencia del deterioro de la flora marina. Se puede apreciar que se están acometiendo acciones para recuperar la playa, tales como: la construcción de una barrera de contención para que al paso de los huracanes. Según los trabajadores que laboran en esta área, después de terminada esta tarea, se le echarán alrededor de 200 m2 de arena para reanimar la playa y se sembrarán nuevos cocoteros y uva caleta para así rescatar la playa que existía hace 20 años atrás.

Sierra del Mar beach, 2014:

After 20 years, as shown in the second picture, due to climate change and the action of hurricanes and tropical storms that have affected the eastern region, it can be seen that the beach is not the same as before, and that most of the flora including coconut palms and seagrapes have disappeared; it can also be observed that the wide expanse of sand has gone, and according to testimonies of the workers and residents the wooden bar had to be moved about 10 meters back from where it originally stood. There are no shade umbrellas, and the diving school was closed as a result of the deterioration of the marine flora. You can see that they are undertaking actions to restore the beach, such as building a barrier to protect the beach against hurricanes. According to the workers, after completion of this work, they will add about 200 m² of sand to restore the beach and plant new coconut palms and seagrapes.





Blebak Beach, Indonesia—Indonesian Green Action Forum



Blebak Beach 1994



Blebak Beach is one of the beautiful and prominent beaches in Mlonggo, Jepara Regency. The beach has become a tourist destination since 2012.

From the picture of Blebak Beach taken in 1993, there were environmental disturbances taking place like degrading the mangrove forest, littering and excessive exploitation of marine products. However, there was still a green belt stretching along the coastline though not as wide as the previous years.

Before 1990, Blebak beach hosted a mangrove forest, sea almond trees, coconuts, beach she-oaks (type of casuarina tree), seaweed, sea grass and coral reefs. But between 1990 and 2012 the mangrove forest, sea almond trees, coconuts and she-oak trees were continually cut down for firewood.

Also, fishermen had lost their livelihood because fish were migrating to other beaches in Jepara that had undamaged mangroves.

It could be concluded that the beach before 1990 had high richness index of marine biodiversity which was like Karimunjawa Island because of the absence of public/non-local intervention. But after years of 1990-2014, the beach was degraded so much that ultimately Jepara government intervention was needed in conservation efforts.



Blebak Beach 2014

Blebak Beach 2014:

After Blebak Beach was affirmed as a local tourist destination in 2014 by the Regent of Jepara, Mr. Hendro Martojo, many more efforts were made to develop and improve the quality of the beach.

Jepara's government has engaged more local communities to get together to sustain and protect the beach. One of those groups is the Indonesian Green Action Forum (IGAF), whose organization has actively engaged children, youth and local communities around the beach to work together to improve environmental conditions. One of the main activities is planting mangrove seedlings in affected areas.

Besides IGAF many youth based organizations, university students and local communities now plant seedlings (mangrove, sea almond and beach she-oak) along coastlines.

Even tourists visiting the beach are engaged to plant one seedling to help Blebak Beach. Most of local tourists are so happy after planting mangrove seedlings and other tree seedlings because they realize that our environment is not just for us, but it will be inherited by the next generation. Another observation is that the environment has served us well but we have not served it well for we always do damaging things to the environment, said a local tourist from Jepara.





Temakin Betio, Kiribati — Junior Secondary School 1



Temakin Betio, 1995

Temakin Betio Beach, 1995:

From our interviews with local residents the main difference between 1995 and now is dirty beaches. We found out many things have happened over the years which might be the cause for the dirty beaches. Firstly there was less rubbish in 1990s because there were few people living in the area. However as numbers of people multiplied over the years, the beaches became polluted. More people and so there is more waste materials. In addition, importing items from developed countries started in the early 1990s, and as a result there are now imported waste materials on the beach.

A local resident mentioned that the beach was so lovely and beautiful. They always used it as their place to play football and other games. He mentioned that it was rare to see imported waste materials lying on the beach. In looking back to those years, we discovered that it was a cleaner and safer environment, freer from rubbish unlike today. A resident commented that sometimes they camped on the beach and spent a night there with their families. They just did a small local cleaning, then slept there, under the moon with a fresh wind from the lagoon. This really shows how the beach was a few years back. The beach was also a place to collect fire wood, hardly did they find any tins, plastics and other imported waste items.

In addressing the problem, there are actions that need to be taken care of first. These involve the awareness of the public to understand the importance of the beach and as well to manage to use these waste materials properly. For example, properly disposing of decomposed waste materials, and recycling of other wastes, so trying to have less waste materials lying on the beach. And we will live in a happy and healthy environment.



Temakin Betio, 2014

Temakin Betio Beach, 2014:

On the 18th of October, 2014 during a cleaning campaign at Temakin Betio we came across different types of waste materials, mostly plastics, tins, rubber bottles, clothes, and others. There were lots of rubbish and it took quite a long time to collect them all, especially because we sorted it all. We discovered lots of waste materials that have been thrown onto the beach and even to the lagoon. The most common waste material was plastics, such as ice bags, plastic bottles (rubber) and plastic shopping bags. After our collection we had 15 green bags of plastic waste materials and 10 green bags of other kinds of waste. Most of the waste materials that we came across were not from our country, they were imported items from overseas.

The increase of these waste materials on the beach over the years has brought bad images of our country to other Pacific Islands and the whole world. During our cleanup we witnessed kids, and adults throwing their rubbish on the beach. When asking a resident why they throw their waste materials on the beach, he said "where else is the better place?" He mentioned about leaving his rubbish on the beach so that the sea can clean it up the next day. Another local resident commented in the 1990s he did not see imported waste materials on the beach. Another resident commented on our native way of living. He talk about, how we don't take this rubbish as a serious matter, maybe because we don't really know the importance of cleaning. We don't know about the impact to our health and our environment. He added that most of the Kiribati islanders did not have a clear understanding of why we should clean our beach or how we can use these waste materials, such as to recycle them. This is important for us and our environment. From learning about the impacts it would be easier for people to participate in the cause.





Caña Gorda, Puerto Rico—Escuela José Rodriguez de Soto



Caña Gorda, 1975

Playa Caña Gorda, 1975:

Nuestros abuelos y familiares nos han contado que el balneario ha cambiado. Mi abuela la señora Flor dice que ella visitaba y le gustaba percibir el ambiente familiar que se respiraba allí. En el 1975 la tormenta tropical Eloísa afectó la playa. También escuchamos a Milagros quien nos contó que su papá, el señor Félix Muñoz, trabajaba en Caña Gorda con tres personas más. Ellos limpiaban la playa, la adornaban y preparaban todo. Nos dijo que su papá tardó muchos años, más de diez, en construir todo este balneario. Antes los techos de los gazebos eran de tronco de árboles y zinc en forma de cono. Ahora los techos de los gazebos son más planos.

Llegaban muchas personas para celebrar distintas festividades. Antes no se pagaba para entrar a la playa. No había estacionamiento, ni portones, verjas o tiendas. Los autos se estacionaban en el Bosque Seco afectando la flora y fauna de ese lugar. Caña Gorda es una de las playas más hermosas e importantes en nuestro pueblo Guánica, también conocido como el Pueblo de la Amistad y el paraíso del eterno verano.

Caña Gorda beach, 1975:

Our grandparents and relatives told us that the beach has changed. My grandmother Mrs. Flor says she often visited and liked the family atmosphere that existed. In 1975 Tropical Storm Eloisa hit the beach.. We also heard from Milagros who told us that his father, Mr. Felix Munoz, worked in Caña Gorda with three others. They cleaned the beach and prepared everything. His dad told him it took many years to build the beach facility. They had to cut the trees for the conical roofs of the gazebos.

Many people came to celebrate different festivals. In past times, you did not have to pay to go to the beach. There were no parking places, no gates, fences or shops. The cars were parked in the Dry Forest and this impacted the flora and fauna of the Dry Forest. Caña Gorda is one of the most beautiful and important beaches in our village Guánica, and is also known as the Village of Friendship and paradise of eternal summer.



Caña Gorda, 2014

Playa Caña Gorda, 2014:

En las fotos de 2014 se ve la playa bien bonita y el agua color azul, pero varios aspectos han cambiado. Esta playa tiene verjas y estacionamiento mientras que muchas playas en Guánica no. Antes no se pagaba para entrar en carro y ahora sí. Este balneario tiene bancos, duchas y un muelle para atracar las embarcaciones. Muchas personas de distintos pueblos y lugares de Puerto Rico visitan el balneario Caña Gorda durante el tiempo de verano. Se celebran actividades como cumpleaños y otras acuáticas como, kayak, nadar, motoras acuáticas, etc.

En el 1998, la playa fue azotada por el huracán George. El huracán cambió la orilla de la playa por la erosión. Como se ve en la foto, la erosión hizo que sobresalieran las raíces de las palmeras en Caña Gorda. La maestra Miss Rosario nos explicó que luego del huracán George se estableció un proyecto de restauración en la playa Caña Gorda. El balneario Caña Gorda es parte del pueblo de Guánica y es conocido como el Pueblo de la Amistad y el paraíso del eterno verano. Esta playa del suroeste de Puerto Rico, Caña Gorda, es para el disfrute de todos.

Caña Gorda beach, 2014:

In the 2014 photos the beach looks well with blue water, but several aspects have changed. The beach has gates and parking. Before you did not have to pay an entry fee for the car, but now it is necessary. The beach facility has benches, showers and a jetty. Many people from different towns and places of Puerto Rico visit the Caña Gorda beach facility during the summer time. Activities such as birthdays, kayaking, swimming, water sports, etc.

In 1998, the beach was hit by Hurricane George. The hurricane eroded the seashore. As seen in the photo, the erosion exposed the roots of the palm trees in Caña Gorda. Our teacher, Miss Rosario, explained that after Hurricane George a beach restoration project at Caña Gorda was implemented. The beach facility at Caña Gorda is part of the town of Guanica and is known as the Village of Friendship and paradise of eternal summer. This beach southwest of Puerto Rico, Caña Gorda, is for the enjoyment of all.





Manglillo de Guánica, Puerto Rico-Escuela Superior Aurea Quiles, Club 4H Grupo 1



Manglillo de Guánica, 1984

Playa Manglillo de Guánica, 1984:

El ecosistema de Manglillo como playa es uno muy peculiar porque desde siempre ha tenido una diversidad de manglares de distintos tamaños. Dentro de esta playa cuentan que existía una fosa rodeada por manglares. Una señora que visitaba esta playa desde pequeña en 2014 nos comentó: "Esa fosa en tiempos de marea alta tenía una profundidad increíble." Esto dando referencia a la fosa más profunda, la cual lograba alcanzar los siete (7) pies de profundidad.

Antes los manglares eran de gran tamaño, lo que hacía una diferencia por la altura del árbol dentro del agua y la altura de sus raíces. Esto resultaba en que los manglares salían exageradamente hacia la superficie del agua de esta playa. Por temporada, la gente cuenta que llegan algas marinas. Dos atractivos de esta playa son los peces pasando entre medio de los pies de las personas dentro del agua al igual que observar diferentes tipos de aves de Puerto Rico y otras especies que llegan desde otros países. Para nosotros los puertorriqueños, Manglillo es de gran importancia y al ser parte del Bosque vSeco, también queremos conservarla para el disfrute de futuras generaciones.

Manglillo de Guánica beach, 1984:

The Manglillo ecosystem is unusual because there have always been a variety of mangroves of different sizes. Within this beach there was a pit surrounded by mangroves. A lady who visited this beach since childhood commented in 2014: "That pit in times of high tide had an amazing depth." The depth could reach seven (7) feet deep.

Before mangroves were large and very high. The mangroves reached out over the surface of the water at this beach. People came to collect seaweed. Two attractions of this beach are the fish moving in between the feet of people in the water as well as the different types of birds of Puerto Rico and migratory species coming from other countries. For us Puerto Ricans, Manglillo is of great importance as a part of the dry forest, and we want to preserve it for the enjoyment of future generations.



Manglillo de Guánica, 2014

Playa Manglillo de Guánica, 2014:

Recientes a este balneario son tener facilidades operadas por Recursos Naturales, tales como, las duchas, los gazebos, los bancos, las parrillas y los zafacones. Esta playa Manglillo refleja lo espectacular de nadar en aguas cristalinas, llanitas y calmadas que están llenas de manglares. Estas condiciones son ideales para la práctica de buceo. Su nombre, Manglillo, refleja que los mangles de esta playa sirven de refugio, por ejemplo si hay un huracán, beneficiando a personas y a la vida marina. También los mangles evitan el impacto del oleaje en las costas. Por estas razones concluimos que debemos conservar nuestros recursos naturales para seguir disfrutando sanamente de playas tan valiosas como la 'playa-mangle' Manglillo para nuestras próximas generaciones.

Manglillo de Guánica beach, 2014:

Recently additional facilities have been added to this beach which are operated by the Department of Natural Resources, such as showers, gazebos, benches, grills and trash cans. This beach, Manglillo, reflects the spectacular swimming in crystal calm waters, full of mangroves. These conditions are ideal for diving. The name, Manglillo, reflects the shelter provided by the mangroves for the beach, for example during hurricanes, thereby benefiting people and marine life. Mangroves also reduce the impact of waves on the coast. For these reasons we conclude that we must preserve our natural resources to continue enjoying healthy beaches as the 'beach-mangle' Manglillo for our next generations.





SANDWATCH 2014 PHOTO COMPETITION: A SNAPSHOT IN TIME - BEACHES PAST AND PRESENT Belmont Beach, Bequia, St. Vincent & the Grenadines—Bequia Community High School



Belmont Beach 1994



Belmont Beach 2014

Belmont Beach, 1994:

The Belmont beach, back in the 1990's, was a beach that attracted a lot of tourist and local attention. It was one of the many beaches in Bequia where there was an abundance of sand and other marine life (coral etc). Back then, vendors could have been seen setting up stalls to sell their local produce especially when there were tourists in the bay. Back then, there was no visual debris, nor stones close to or away from the shore. The beach was all sand as far as the eyes and legs could reach. The waters of the Belmont beach also attracted numerous scuba divers since the water was clear and pristine and ideal for snorkeling.

Belmont Beach, 2014:

The Belmont beach, at this present time, cannot be considered a beach as such since no sand is visible. Over the years, due to erosion and other factors such as rise in sea level etc., stones now replace the sand that was once visible twenty or so years ago. The Belmont beach no longer attracts tourists or even locals. All that is visible now are huge boulders and water that is so deep that if not for the boulders, one could actually jump in head first.





SANDWATCH 2014 PHOTO COMPETITION: A SNAPSHOT IN TIME - BEACHES PAST AND PRESENT Bobby Rock Point, Turks and Caicos Islands—Eliza Simons Primary School



Bobby Rock Point, 1995

Bobby Rock Point 1994—2014:

The ocean feeds a natural creek at the location of the beach. The creek was dredged too deeply in the 1980's and this has contributed a lot over the years to the erosion of the beach. Additionally, sand mining along with other natural forces have all but completely decimated the white sandy beach. Attempts were made some time in the '90s to alleviate the damage being done by simply dumping wreckages of old vehicles along the shoreline, but all to no avail.







Bobby Rock Point, 2014





Bai Gia, Vietnam—Nguyen Thi Minh Khai Gifted High School, Class 12A6S—Sea Memories







Bai Gia, Tran De District, Soc Trang, Vietnam is one of the oldest fishing grounds. By the 1990s, people in this area mainly used rudimentary tools to catch fish. Most of them went fishing with sailboats and nets woven from hemp and string. Around the years of 1992-1994, motorized boats began to appear, but most people still used sailboats since few people had financial means to buy motor boats. In those old days, during a fishing journey of 5-6 days, fishermen could catch some valuable marine species such as Dua fish, Dang fish, Doc fish, Bong Lau fish, Ngat fish and many popular fish species such as Mackerel, Sea Carp and Khoai fish,.

Fishermen in the Bai Gia fishing ground were Khmer people. They started to work early at the age of 12 until they were 50-55 years old. About 25 years ago, there were many people living in this coastal village. In 1990-1991, due to the soil erosion, the residents had to move away but still caught fish in this area. After that, as the result of international cooperation, the Dutch government funded Vietnam to plant protective forests in this area to prevent soil erosion from continuing. Having reviewed the natural characteristics, the government decided to plant mangrove (Sonneratia) forests because Sonneratia is a kind of tree which can live both on land and underwater, grow deep roots to help keep the soil against erosion.



Bai Gia, 2014

Bai Gia Beach, 2014:

Leading to the fishing village was a long twisty road, with low-roofed houses on one side and a boat port on the other side crowded with sailing boats. The smell of fresh seafood and salty sea water spread everywhere. However, sometimes we saw rubbish, including waste light bulbs, waste bottles, waste food wrapping paper, etc.

Instead of the beach of the past it is now a green mangrove forest with high, big and solid trunks covering the large sea. After serious soil erosion, the inhabitants had to move to another place to live and then the mangrove trees were brought here to protect the land and the fishing village from disasters. Since then, the soil has been more fertile, instead of the poor sandy soil in the past. Much more animal species have come like birds, monkeys, amphibians, etc. The government not only planted this forest, they also built a dyke, which is 6 meters wide, to prevent crop plants from salted water. Thanks to the attention of local government and the development of technical science, the local people felt safe to have a stable spiritual and material life. However, they still worry about the increasing amount of rubbish and the alarming disappearance of some types of fish. Should these people here lose what nature has favored offering to them? Then they felt regretful and wondered: When will it return to what it was in the past?





Mo O, Vietnam—Nguyen Thi Minh Khai Gifted High School, Class 12A9



Mo O, 1994



Mo O beach is not very far from the city centre. We were welcomed warmly by the people who took us to see things that we would never have known. As Uncle Bay said, this land was considered as a bustling land 20 years ago. The scenery created a vivid picture with the green of the mangroves, the yellow of the sand and the brown, white of the seas.

About 2 to 3 am, fishing boats started to put out to sea. 20 years ago, the sea was full of resources. Every time they came back to the land after fishing, many fishes and shrimps were caught and the happy smiles were in all their faces.

The people living here are really proud of their motherland and the variety of seafood. Local residents consider the sea as part of their family or their heartbeat and they rely on it for the rest of their lives. As the practical impact of the sea, we can not only see the harsh life of fishermen, but also find the optimistic spirit through their smiles and the way they live. After the trip, we are more aware of the sea. We realize that sea plays an important role in our lives, we also feel the love for the sea of people who live here. Because of those reasons above, we now respect the sea more. Mo O Sea is blue, fresh and full of resources.



Mo O, 2014

Mo O Beach, 2014:

After two decades with many changes, we found Mo O beach was now very different from the past, it was almost the opposite. There was a large yard and swamps instead of a bustling market. There were precarious houses near to the shore and trash such as empty bottles, light bulbs.

Our country is progressive, the economy is developing and the old fishing ways are now changed. It is new and more modern. "If I had a chance of choosing, I would choose the old Mo O", said a man who has been working as a fisherman for 30 years. He misses the days when everything was peaceful and simple, when the sea hadn't been affected, when people appreciated what the environment brought them.

Nowadays, people pollute the sea because of selfishness and economic benefits. Waste is thrown into the sea, and the sea brings it back to the land. Moreover, a large quantity of fish are lost because of the exploitation. The sea is very kind to us but not vice versa. Things are supposed to be better, but the old ways and the old land now just live in the minds of the old people, those who have spent their entire lives in this land.





Tran De, Vietnam—Nguyen Thi Minh Khai Gifted High School, Class 12A7







Tran De, 2014

Tran De Beach, 1994—Interview with Mr. Bay Choi:

20 year ago, Tran De was a pristine sandy beach. Everyday, the wind looked like a dance of the homeland. That is the day some young people made time to go kite flying together every afternoon. They looked forward to this after a long day. The old people thought about their life as footsteps in the sand.

20 year ago, Tran De had a yellow sand beach that we used to run though. In that place, there were big and small clams. There were many things we became fond of. That we can't forget. It was so simple, those days to go fishing with dad or we sat on a motorcycle and drove along the coast. Some afternoons we let down the nets into the sea with our mother.

Tran De of the past was simple. Along the coast the trees grew closely together. In the past, Tran De was a true wilderness area. In that place, there was fresh air and a clean beach. Tran De was favored by mother sea. Tran De had rich fishery resources, which made the kids smile when their photograph was taken. Tran De was a peaceful beach we were told.

Tran De Beach, 2014:

After 20 years, Tran De is now just a sea, it's very different from the past. The memories of the beach shore of the past have evaporated. The sand drifts away, the thin mud deposits now fill up the shore, residents don't take an interest in old land. Returning a few times and hearing villagers lament about their life. Stocks of shrimps and fish are now exhausted. Every time we want to catch fish, we must drive the boat far away from the shore about ten kilometers. Fish, shrimps move away and then, garbage is pushed ashore by waves, because people drop litter into the sea. A lot of the pesticide bottles or pieces of the bottles follow the waves that rush onto the shore.

Although the local government calls upon all people in the village to clean up the environment, no one does. Tran De beach does not have the silhouette of motorbikes driving along the beach. No longer do the boys smile when a photograph is taken of them on the beach. Day by day, everyone said that they liked their life in the past when the landscape was very pristine, and the air fresh and peaceful. The cork trees grew closely and extended to the sea. The homeland has changed much.