



BY COURIER

Ref: PILAP/HO/2020/451

Dated: 02 November, 2020

**The Director General,
Sindh Environment Protection Agency
EPA Complex,
Head Office,
Plot No. ST-2/1, Sector 23,
Korangi Industrial Area,
Karachi**

**REQUEST FOR INFORMATION UNDER THE SINDH TRANSPARENCY AND RIGHT TO
INFORMATION ACT, 2016**

Dear Sir,

The Public Interest Law Association of Pakistan (PILAP) is a public interest association concerned with the primary objective of enabling the citizens of Pakistan to attain the realization of their civil, human, economic, social and political rights, as guaranteed by the Fundamental Rights laid down in the Constitution of Pakistan. PILAP addresses matters of public interest by means of advocacy and by seeking redress for the people of Pakistan through the justice system. It respectfully submits as under:

1. That the details of the authorized person on behalf of PILAP are as under: -

Name of the Applicant:	Pervez Said
CNIC No.:	42301-0954324-1
Father's Name:	Muhammad Said
Address:	51-I, Khayaban-e-Hilal, Phase-6, DHA, Karachi
Phone No.:	0300-8235570

2. That PILAP submitted an RTI application dated 6th July, 2020 under the Sindh Transparency and Right to Information Act, 2016 to the Sindh Environment Protection Agency (SEPA) seeking information on a proposed development project along a stretch of Seaview Beach, Karachi, to be undertaken by Cantonment Board Clifton (CBC) (attached as Annexure A). To date the said RTI has not been responded to by SEPA contrary to the 2016 Act.

PUBLIC INTEREST LAW ASSOCIATION OF PAKISTAN

Plot # 18-C, 2nd Floor, Office # 202, Zamzama Lane # 2, Phase-5, DHA, Karachi.
Phone: +9221 32417049, +9221 32417087, +9221-35304110 Email: info@pilap.pk

3. That PILAP submitted a similar RTI to CBC seeking the same information. A response to the RTI was submitted through the offices of the Pakistan Information Commission via appeal no. 458—08/20 and CBC's letter dated 24th August, 2020 (attached as Annexure B).
4. That CBC's letter dated 24th August, 2020 brought attention to an NOC dated 19th February, 2020 issued to it by SEPA granting approval for the Seaview Beach development project. The said NOC was issued on the basis of an Initial Environmental Examination (IEE) conducted by CBC and submitted to SEPA for approval.
5. That given the fact that the proposed CBC project is planned along the coast and would involve land reclamation, it will impact the water quality, marine life and the ecosystem along the coastline. The project would also generate large amounts of waste, during and after construction. In an article published in Dawn on 5th July, 2020, a Senior Director at World-Wide Fund for Nature-Pakistan is quoted to have said that the project is "a recipe for an ecological disaster as large concrete structures along the coastline have shown to impact sea's hydrological dynamics, causing loss of natural land and increasing the risk for erosion and vulnerability to inundation. They also magnify the impact of extreme weather events and natural disasters." The article further quotes Dr. Asif Inam, former Director-General of the National Institute of Oceanography, saying that "Clifton beach is experiencing rapid sedimentation of the material dredged from KPT's Deep Sea Container Terminal, and that any structure along the Clifton beach would obstruct the naturally occurring process of longshore sediment transport from the West of Clifton to the East, thus resulting in accumulation of sediments on the western side and erosion on the eastern side of the structure." The project, therefore, will affect not only the ecosystem of the area but quality of human life as well.
6. That section 17(1) of the Sindh Environment Protection Act, 2014 provides that "*No proponent of a project shall commence construction or operation unless he has filed with the Agency an initial environmental examination or environmental impact assessment, and has obtained from the Agency approval in respect thereof.*" Subsection 3 of section 17 requires that "*Every review of an environment impact assessment shall be carried out with public participation and, subject to the provisions of this Act, after full disclosure of the particulars of the project.*"

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7. That the Sindh Environmental Protection Agency (Review of Initial Environmental Examination and Environmental Impact Assessment) Regulations, (“2014 Regulations”) provide in Regulation 4 that *“a proponent of a project falling in any category listed in Schedule-II shall file an EIA (Environment Impact Assessment) with the Agency (SEPA).”* While Regulation 3 provides that *“A proponent of a project falling in any category listed in Schedule-I shall file an IEE (Initial Environmental Examination) with the Agency.”* It is apparent from a perusal of Schedule II that *“large scale public facilities”* fall within clause I (4) of the said Schedule. The facilities at the proposed development project are to include *“two beach decks, a jogging track, fountains, monuments, restaurants and tuck shops, hawkers and streets stalls, a children’s play area, two public piazzas of 2.5 acres each, green areas spread over 13.5 acres and watchtowers”* (Dawn, 5th July, 2020). It, therefore, has all the features for *“large scale public facilities”* and requires an EIA. The project also has the potential to fall within clause K (2) of Schedule II as it is a *“project likely to cause an adverse environmental effect”*, as discussed in paragraph 5 above.
8. That further, as per section 18 (1) of the Sindh Environmental Protection Act, 2014, *“All provincial government agencies, departments, authorities, local councils and local authorities responsible for formulating policies, legislation, plans and programmes to be implemented in Sindh province which may cause any environmental impact in the jurisdiction of the province shall, before submitting the same to the competent authority for approval, forward to the Sindh Environmental Protection Agency a strategic environment assessment.”* CBC, being a local authority, and the proposed project having the potential to cause environmental impact in the jurisdiction of Sindh province, the question arises as to why a Strategic Environment Assessment (SEA) has not been conducted.
9. That public scrutiny of the proposed development project is a matter of public interest. It involves a potential adverse impact upon the environment and hence requires public participation under the Environment Impact Assessment (EIA) review process provided for by the SEPA Act. The proposed project also impacts Fundamental Rights under the Constitution. The Supreme Court of Pakistan has ruled that the right to life under Article 9 of the Constitution encompasses the right to a healthy environment. Further, under the Public Trust Doctrine, the state is obligated to hold public resources, such as coastlines, on trust for the enjoyment and use of the public. Therefore, public participation in any development activity that affects the environment is essential, as is the requirement for fulfilling regulatory provisions.



10. That, in light of the above, PILAP respectfully submits this Application requesting for information under the right granted by the Sindh Transparency and Right to Information Act 2016 as under: -
- i) Why has an EIA or SEA not been conducted by CBC for the proposed development project along the stretch of Seaview Beach, Karachi?
 - ii) Why has SEPA granted an NOC for the Seaview Beach development project without an EIA having been conducted and without a review involving public participation and full disclosure of the particulars of the project?
11. That in the circumstances, PILAP would be grateful for a reply at the earliest.

Thank you.

Best regards,

Public Interest Law Association of Pakistan (PILAP)
Through its Chief Executive Officer
Pervez Said

Address for reply:

Public Interest Law Association of Pakistan (PILAP),
Office No.202, 2nd Floor, Zamzama Commercial Lane # 2,
Defence Housing Authority, Phase-5,
Karachi.

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BY COURIER

Ref: PILAP/2020/344

July 06, 2020

1. Cantonment Board Clifton,
Through the Cantonment Executive Officer,
CC-38, 10th Street,
Khayaban-e-Rahat,
Phase VI, DHA,
Karachi
2. Sindh Environment Protection Agency
Through its Director General
EPA Complex,
Head Office,
Plot No. ST-2/1, Sector 23,
Korangi Industrial Area,
Karachi

REQUEST FOR INFORMATION UNDER THE RIGHT OF ACCESS TO INFORMATION ACT, 2017

Dear Sir,

The Public Interest Law Association of Pakistan (PILAP) is a public interest association registered under the laws of Pakistan and is concerned with addressing issues of public interest in accordance to the Fundamental Rights guaranteed by the Constitution of the Islamic Republic of Pakistan. It respectfully submits as under: -

1. That the details of the authorized person on behalf of PILAP are as under: -

Name of the Applicant:	Pervez Said
CNIC No.:	42301-0954324-1
Father's Name:	Muhammad Said
Address:	51-I, Khayaban-e-Hilal, Phase-6, DHA, Karachi
Phone No.:	0300-8235570

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2. That please refer to the article published in *Dawn* on 5th July, 2020, titled "Clifton Beach Development Project Poses Serious Environmental Risk, Experts Warn". The said article is attached herewith for ease of reference.
3. That the above mentioned article draws attention to a development project currently being undertaken by the Cantonment Board Clifton (CBC) along a stretch of Seaview Beach. Though the project has been approved by the Sindh Environmental Protection Agency (SEPA), the approval was granted without a detailed Environmental Impact Assessment (EIA). Under the provisions of the Sindh Environmental Protection Act, 2014, once an EIA has been submitted by a proponent of a project, SEPA is required to review it before such approval is granted. Every such review is to be carried out with public participation and after full disclosure of the project details.
4. That the citizens of Karachi are stakeholder in the proposed CBC project and hence it is their right to be a part any decision-making process that has an impact on their lives. The Constitution guarantees the right to life, which has been interpreted by the Supreme Court of Pakistan to include the right to a healthy environment. The citizens, therefore, are entitled to be a part of any review process that could have an impact on their lives.
5. That the proposed project could potentially have an adverse impact on the surrounding environment, including the coastline. It would also pose a risk in terms of polluting the water, and hence threatening the flora and fauna, as well as the human population.
6. That, in light of the above, PILAP respectfully submits this Application requesting for information under the right granted to all citizens of Pakistan under the Right of Access to Information Act 2017 as under: -
 - i) What is the reasoning behind SEPA's failure to conduct a review of CBC's proposed project, as it is required to do under the law?
 - ii) What is the reasoning behind SEPA's failure to meet the requirement of seeking public participation in its review of the CBC project, as it is required to do under the law?
 - iii) What measures, if any, has CBC taken to ensure that the proposed project shall be open to all citizens, in line with the pronouncements of the Honourable superior

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courts that have pronounced that the right to open access to public spaces is a fundamental right?

iv) What steps, if any, has CBC taken to ensure that the proposed project does not adversely impact the environment, including the sea and coastline, flora and fauna and human health?

7. That in the circumstances, PILAP would be grateful for a reply at the earliest.

Thank you.

Best regards,

Public Interest Law Association of Pakistan (PILAP)
Through its Chief Executive Officer
Pervez Said

Address for reply:

Public Interest Law Association of Pakistan (PILAP),
Office No.202, 2nd Floor, Zamzama Commercial Lane # 2,
Defence Housing Authority, Phase-5,
Karachi.

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RTI-344
Appeal-369

Pakistan Information Commission

1st Floor, National Arcade, 4-A Plaza
F-8 Markaz, Islamabad
Website: www.rti.gov.pk
Phone: 051-9261014
Email: appeals@rti.gov.pk
@PkInfoComm



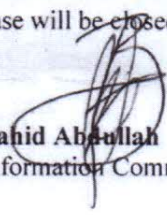
Date: October 15, 2020

Appeal-No 458-08/20

Pervez Said
Public Interest Law Associate of Pakistan
Office 202, 2nd Floor, Zamzama Commercial Lane # 2
Defence Housing Authority, Phase 5
Karachi

Dear Appellant,

Please find enclosed response/information of Cantonment Board Clifton in response to your appeal. If you are not satisfied with response of the public body, please contact Pakistan Information Commission in writing within 07 working days of the receipt of this letter. Otherwise, it will be presumed that you are satisfied with response of the public body and the case will be closed.


Zahid Abdullah
Information Commissioner



CANTONMENT BOARD CLIFTON

CC-38, Street 10, Kh-e-Rahat, Phase-VI, DHA, Karachi-75500
Ph. # 35847831-2, 35348774-5, 35850403, 35348784, Fax 5847835
Website: www.cbc.gov.pk



No. CBC/Engr Branch/ 02440
To

BY HAND/TCS/THROUGH FAX

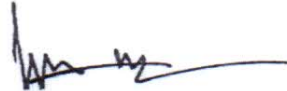
Dated the 24 August 2020

M/s Public Interest Law Association of Pakistan (PILAP)
Office No. 202, 2nd Floor Zamzama Commercial Land-2,
Defence Housing Authority.

Subject: REQUEST FOR INFORMATION UNDER RIGHT OF ACCESS TO INFORMATION ACT, 2017
Reference: PILAPS letter No. PILAP/2020/344 dated 06/7/2020 and Pakistan Information Commission letter/ Appeal No. 458-08/2020 dated 7/8/2020.

2. The requisite information is given hereunder as desired please. However the delay is regretted please.

S#	Information Required	Response
1	What measure, if any has CBC taken to ensure that the proposed project shall be open to all citizen, in the line with pronouncements of the Honourable superior courts that have pronounced that the right to open access to public spaces is a fundamental right?	The proposed project will be open for general public once executed.
2	What Step, if any, CBC taken to ensure that the proposed project does not adversely impact on the environment, including the sea and coastline flora and fauna and human health.	SEPA has already accorded NOC/ approval vide letter dated 19/2/2020. All the requisite measures which are necessary to save coastline flora and fauna including human health will be carried out by CBC in the line with SEPA's NOC.


(Designated Official)
CHIEF CANTT ENGINEER
CLIFTON CANTONMENT

Copy to:

1. The Station Headquarters Karachi Cantt
2. The Information Commissioner
Pakistan Information Service Academy Zero Point Islamabad

DISPATCHER
Cantonment Board Clifton
24.8.2020



SINDH ENVIRONMENTAL PROTECTION AGENCY
GOVERNMENT OF SINDH

HEAD OFFICE:
Plot # ST-2/1, Sector- 23, Shan Chowrangi,
Korangi Industrial Area, Karachi.
Ph: 35065950, 35065598, 35065532
epasindh.gov.pk
Facimile: 35065940

Date: February 19, 2020


SUBJECT: DECISION ON INITIAL ENVIRONMENTAL EXAMINATION (IEE)

1. Name & Address of Proponent: Cantonment Executive Officer
M/s. Cantonment Board Clifton (CBC),
Khayaban-e-Rahat, D.H.A Phase 6,
Karachi, Sindh 75500
2. Description of Project: Development of Beach from Nishan-e-Pakistan to
Chunkey Monkey Phase-V Ext. DHA Karachi
3. Location of Project: 01-kilometer stretch on Abdul Sattar Edhi Avenue
from Nishan-e-Pakistan to Chunkey Monkey (DHA
Phase V)
4. Date of Filing of IEE: 18-12-2019

After careful review and analysis of the Initial Environmental Examination (IEE) report, the Sindh Environmental Protection Agency (SEPA) accords its approval subject to the following conditions:


- i) That, the recommendations of IEE report including the environmental management and monitoring plan shall be strictly adhered by the proponent.
- ii) That, Cantonment Board Clifton (CBC) shall follow all mitigation measures recommended in the IEE report for achieving negligible impacts on physical, marine, environmental, marine and socio-economic resources of the area. Sindh Environmental Quality Standards shall be followed in letter and spirit. Sewage Treatment Facility of adequate capacity shall be installed.
- iii) That, the noise producing machinery will be subjected to a regular maintenance program and provided with noise control devices to minimize noise levels as much as possible. Noise monitoring shall be conducted on regular basis and night construction work shall not be allowed.

- 10/15
- iv) That, the proponent shall be exclusively responsible for information provided through IEE report to this Agency. If the SEPA finds or establishes that any documents provided by the proponent, any misrepresentation/ concealment of facts or forgery / fabrication of information or falsified or tempered then this approval shall stand cancelled without any prior notice.
 - v) That, the proponent shall appoint an Independent Monitoring Consultant (IMC) whose responsibility shall be to monitor the environmental performance during Construction and Operation of project and to ensure that the activities at project site are undertaken in environment friendly manner and the mitigation measures are implemented as per the recommendations of IEE. The IMC will also guide on implementation of environmental management systems. The proponent shall be liable to submit monthly environmental performance monitoring reports of plant through IMC to Sindh EPA. The report shall include pollutants measurement and analysis reports along with photographic records showing therein the environmental conditions at site during the construction and operation stages of project.
 - vi) That, CBC shall implement this project within its own jurisdiction of land and shall not trespass into the boundaries of other landowning agencies without proper agreements. All disputes must be resolved at the planning stage.
 - vii) That, a comprehensive Waste Management Plan will be developed for effective disposal of Solid waste during construction activities. Qualitative & quantitative data shall be maintained and can be examined by this Agency for verification / audit purpose. The waste shall be disposed-off in environment friendly manner, through SEPA certified contractor/ vendor.
 - viii) That, all solid waste shall be collected and stored at designated solid waste storage area and final disposal will be done through dedicated waste management contractors at landfill sites. Hazardous waste, if any shall be separated from other wastes. Hazardous wastes shall be stored in designated areas with restricted access and proper marking. Hazardous wastes, if any shall be disposed of through SEPA certified waste management contractor.
 - ix) That, the Proponent shall ensure that no unfortunate incident (s) is caused due to construction of project. The cost of damage to the environment, property and life of the people / workers shall lie on the proponent.


19/02/2020

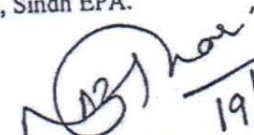
Page 2 of 4

- x) That, traffic management plan will be introduced to manage smooth flow of vehicular traffic and to avoid traffic jam and long queues. Vehicles will be parked at designated parking areas during operational phase. Parking of vehicles alongside the road would be prohibited at all times.
- xi) That, CBC shall adopt state of the Art and International Standard for Safety with regard to project operations & related installations to prevent any public safety related hazards.
- xii) That, CBC shall implement the emergency response and contingency plan for the sake of risk mitigation. A contingency and emergency response plan will be developed to effectively address any risk or hazards caused during operations of the project.
- xiii) That, CBC shall undertake extensive tree plantation in and around the area, for the improvement of aesthetic / environmental conditions and to compensate the production of carbon dioxide by the project activities.
- xiv) That, all contractors, sub-contractors and workers shall be trained appropriately to work on EMP effectively. Employees training will provide workers with information on minimizing waste generation and other environmental requirements.
- xv) That, emergency response or contingency plan should be develop before the construction phase of the project for risk mitigation of local peoples if any, neighboring and relevant authorities will be informed with SOPs regarding for emergency plan.
- xvi) That, a complete code of Health, Safety and Environment (HSE) shall be developed which should include efficient parameters at specific work place. For this purpose, HSE setup should be established and supervised by a designated HSE officer at the senior level with sufficient administrative and technical authority to perform the designated functions. CBC will make sure that the operating instructions and emergency actions are made available to every visitor and worker at the site.
- xvii) That, the proponent shall be liable for compliance of Section 11, 12, 13, 14, 17, 19 & 20 of Sindh Environmental Protection Act-2014 and its Rules & Regulations made there under.
- xviii) That, this approval shall not absolve the proponent of the duty to obtain any other approval or consent that may be required under any law in force.


19/2/2020
Page 3 of 4

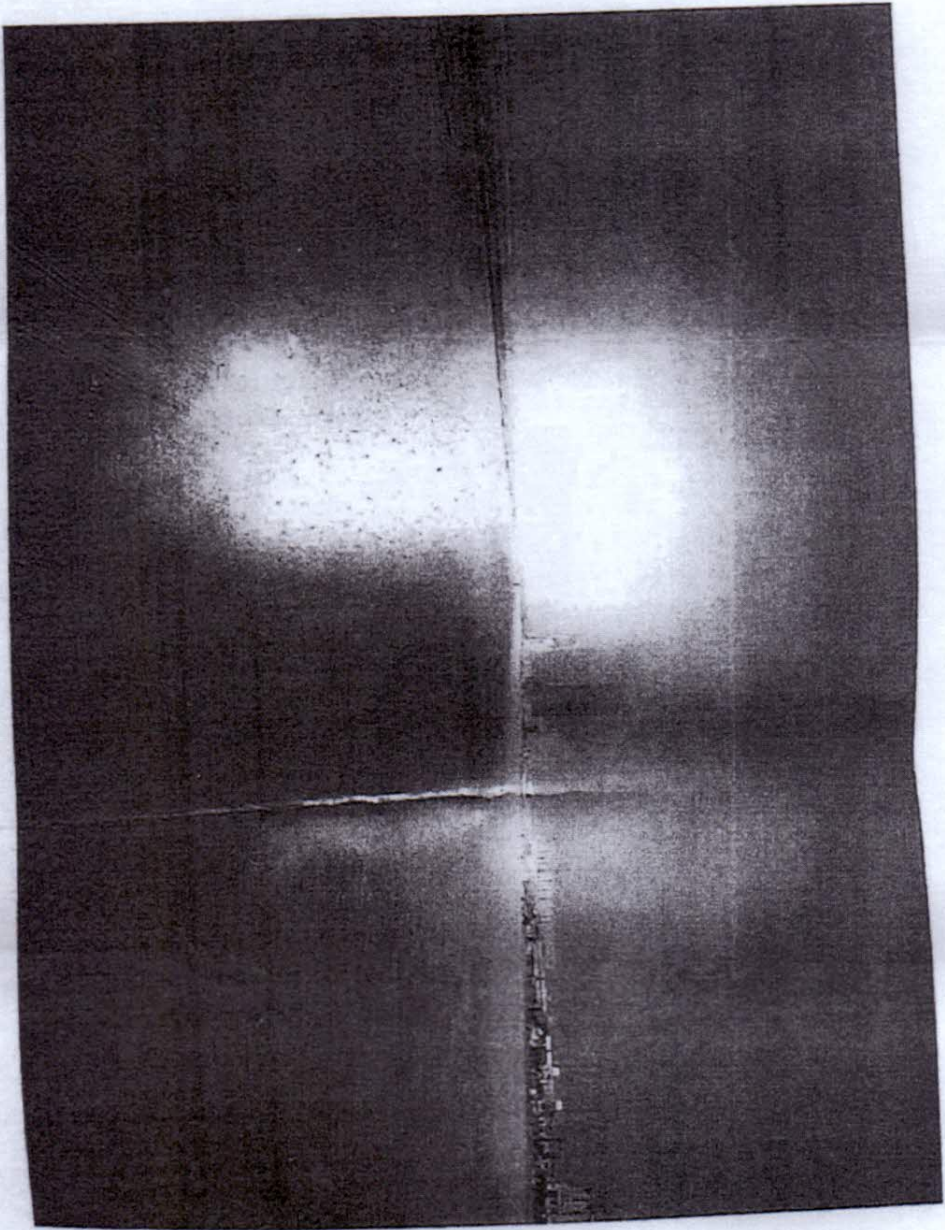
6. That, this approval does not absolve the proponent of the duty to obtain any other approval or consent that may be required under any law in force.
7. That, this approval is accorded only for the proposed project activity described in the IEE report. Proponent shall submit separate application for approval as required under regulations for any enhancement or change in the design of proposed project.
8. That, this approval is not valid for any Court matter/land dispute.
9. That, the SEPA, at any stage of the project reserve the right to issue instruction for an independent audit for to ensure that the project is implemented under strict compliance of SEP Act 2014 & conditions of this approval.
10. That, the proponent shall submit all relevant approval to this agency before commencing of the project, in case of non-compliance of the condition, this approval shall be treated as null and void.
11. That, this approval shall be treated as null and void if the conditions mentioned in this approval are not complied with or any violation of SEP Act, Rules, Regulations, Guidelines and instructions there under is committed by the proponent or his/her agent or employee. In case of any contravention legal action under the provision of SEP Act 2014 will be initiated.

This is issued with the approval of Director General, Sindh EPA.


19/2/2020
Deputy Director (Technical -VI)
for Director General, SEPA

**Initial Environmental Examination (IEE):
DHA Seaview Beach**

- EMC team of experts on the 10 December 2019 of DHA Seaview Beach at Ebb Flow (receding tide) located from $24^{\circ} 47' 18.8''$ N $67^{\circ} 2.41'.07''$ E to $24^{\circ} 47' 40.3''$ N $67^{\circ} 02' 20.4''$ E.
- This is a beach front project area is about 2.38 Km².





Client:

LEGEND

Project Location



PREPARED BY	Reviewed by
CHECKED BY	Issued
APPROVED BY	Doobih Tarihi

INITIAL ENVIRONMENTAL EXAMINATION
 THIS PROPOSED DEVELOPMENT WORK ALONG QLEIFAH
 ROAD FROM NISJAN-2-VIA THE DEVAUTICATION OF BRADLI
 PHASE - V, KAWACH AREA OF DUBAI

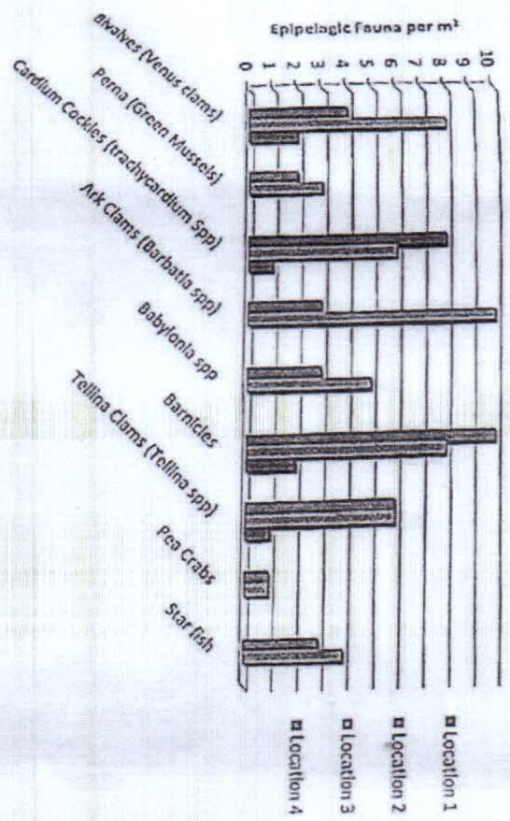
PROJECT LOCATION MAP

DATE	01/01/2011
EDITION	01

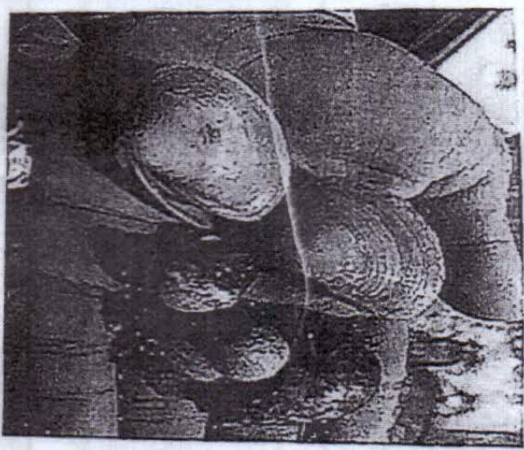
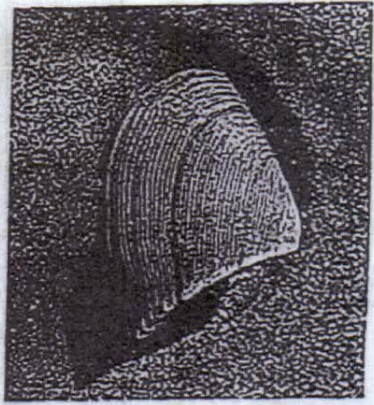




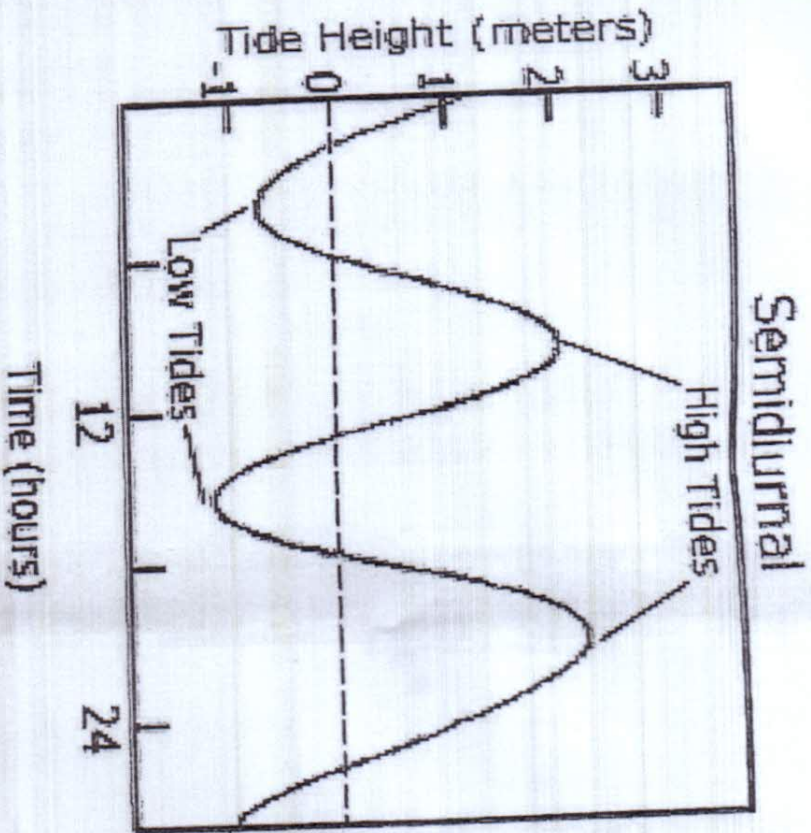
Site Location	Latitude E	Longitude N	Time	Tidal Position	Type of Substrate
1	067° 02' 41.9"	24° 47' 18.8"	11:30 am	High Water Mark Ebb/low (1.7 m)	Dry Fine Silt Fine silt, sea spray
2	067° 02' 36.2"	24° 47' 18.6"	11:50 am	Intertidal zone splash zone (mean low water zone) Ebb/low (1.7 m)	Compact Fine Silt Intertidal zone
3	067° 02' 33.3"	24° 47' 18.9"	12:35 pm	Intertidal zone Mean Low Water Mark Receding/Ebb (1.6 m)	Compact Intertidal zone Fine silt
4	067° 02' 30.3"	24° 47' 18.0"	1:00 pm	Low water mark with local picnicers Receding/Ebb (1.6 m)	



Epipelagic Faunal Species

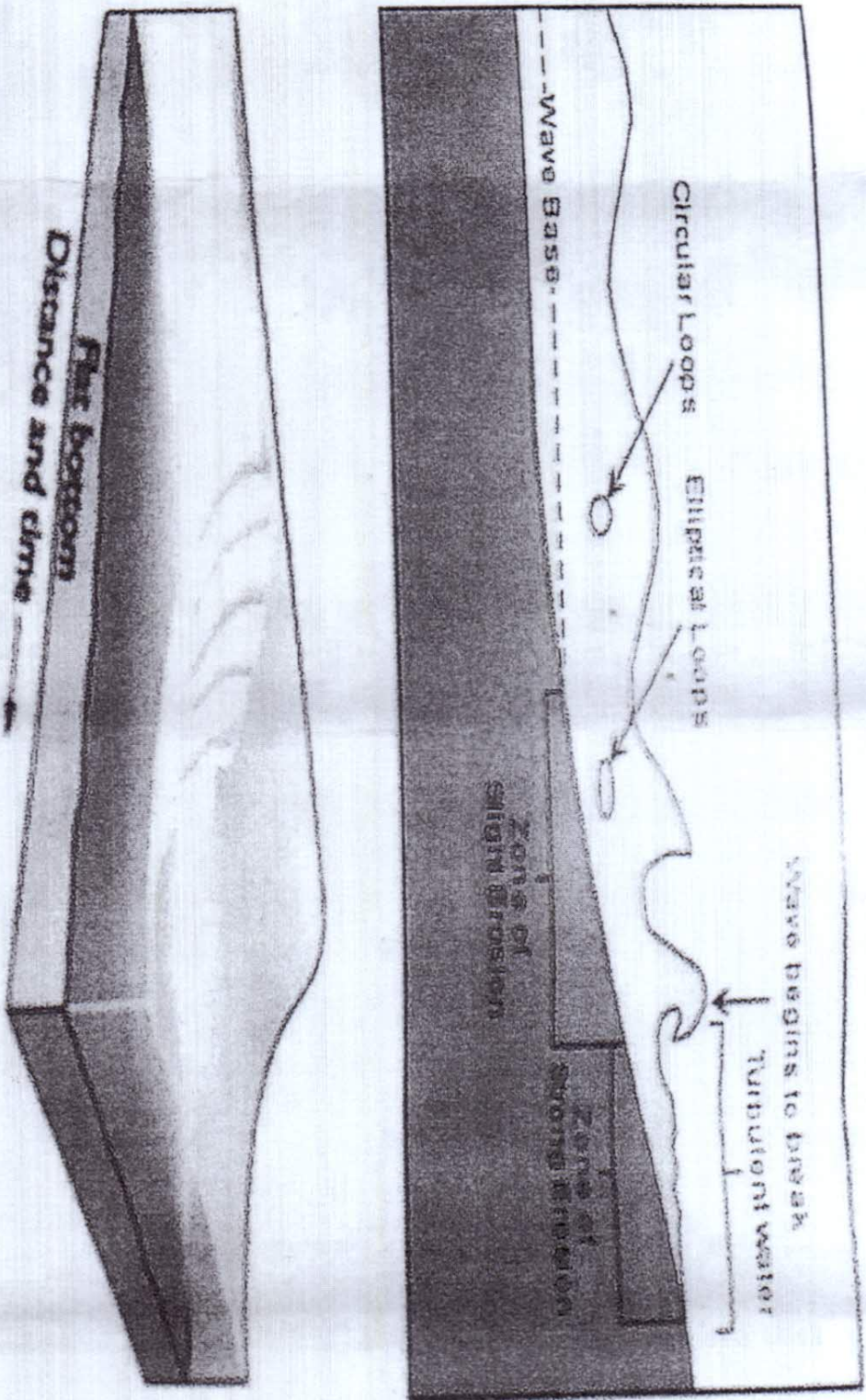


Oceanographic Impacts	
Climate Parameters	
Wind SW Monsoon	Predominantly in SW to W wind speed approx. 30 Kts/hr.
Wind NE Monsoon	North East direction Wind speed 5 Kts/hr.
Tides	Mean Sea Level = 1.8 m Mean Low Water = 0.4 m. Strong ebb currents 1.6 m/Sec. Scouring effects to be considered.
Currents	Deep Water Wave height. 6.0 m T = 10.5 sec.
Waves	Near Shore Wave height 4.2 m T = 10.5 sec.
Suspended Material	Silt and Mica
Floods	700 ppm in SW Monsoon 300 ppm in NE Monsoon Frequency 2-3 years
Beach Erosion/Construction activity	Reclamation Required at about 4.9 m above Chart Datum
Rainfall	Frequency one per year approx. 120 mm/year



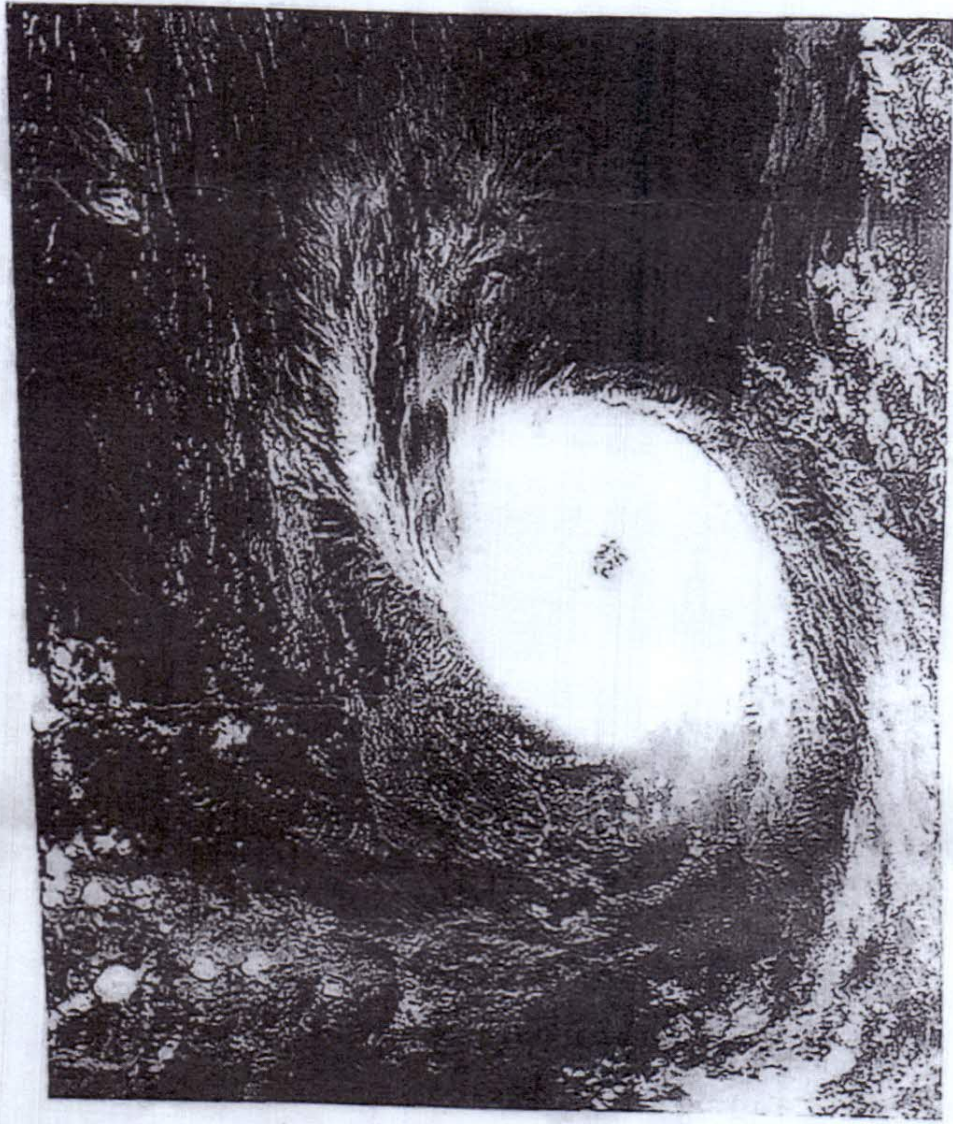
Pakistan Coastal area has semidiurnal tidal cycle, if it experiences two high and two low tides of approximately equal size every lunar day.

Ports	L.A.T	M.L.L.W	M.H.L.W	M.S.L	M.L.H.W	M.H.H.W	H.A.T
Karachi	-0.6	+0.4	+1.1	+1.67	+2.3	+2.4	+3.4
Port Qasim Entrance. (Bundal Island)	-0.6	+0.6	+1.2	+1.76	+2.3	+2.9	+3.7
Port Qasim (Pipri)	-0.6	+0.1	+1.4	+2.00	+2.7	+3.4	+4.0



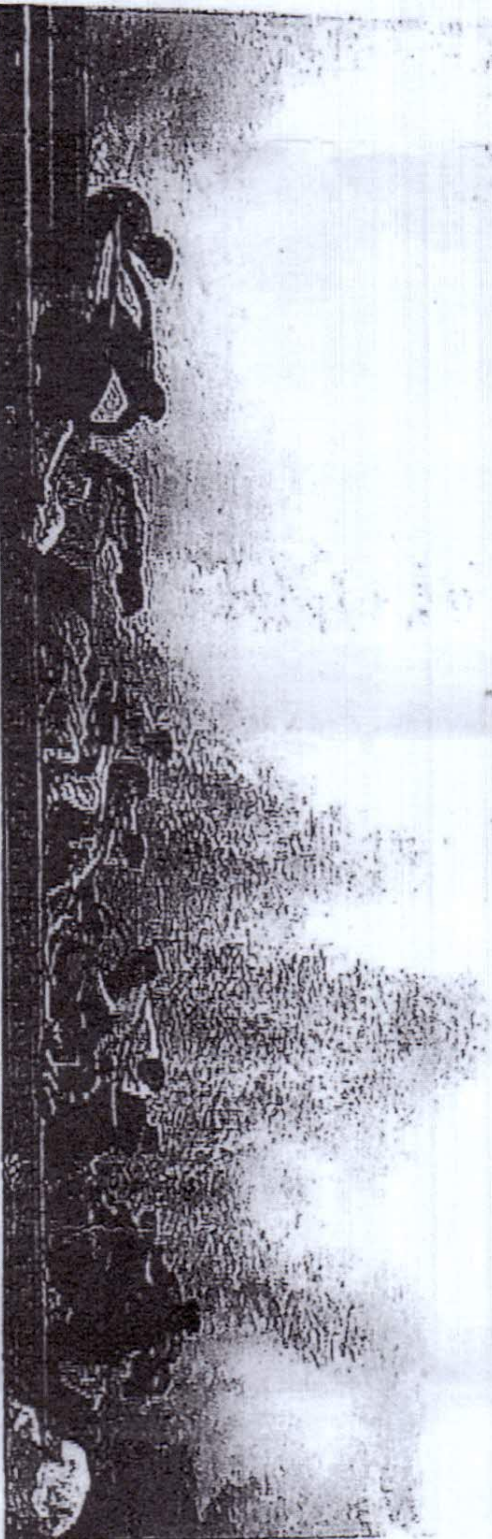
(1) SPILLING BREAKER

Each year before the onset of monsoon that is 15 April to 15 July and from 15 September to 15 December, there is always a distinct possibility of the cyclonic storm to develop in the north Arabian Sea. There is a 98 per cent chance of cyclones to turn towards the Indian state of Gujarat, one per cent chance of moving towards the Gulf and one per cent chance of moving towards the Pakistani coast.



DAWN MONDAY JUNE 16, 2024

SOU



22/1/2024: People sunbathing on a beach during a strong S.W. monsoon. Waves are breaking at the shore.

Spring tides (new moon) during SW Monsoons are intense coupled with high energy waves. The high energy waves dissipate their energy on the coastal areas. Neap tides (full moon) also contain strong energy tides that disburse the energy potential along the coastal areas. The strong (>30 knots) winds during the S. W monsoon period rigorously erode the coastal sea floor that takes place in the surf zone, i.e. between shoreline and breakers. Waves break at depths between 1 and 1.5 times wave height

Area of Potential Impacts	Consequence (Negligible/Moderate/High)			Likelihood (Frequent/Medium/Limited)			Significance (Major/Minor/Limited)	Comments
Impacts on plankton and larvae	Moderate	Negligible	Medium	Minor				<p>Pollution in coastal area may cause eutrophication and reduce the productive potential of the beach.</p> <p>Mitigation</p> <p>Ensure prevention of coastal pollution by installing sewage treatment plants.</p> <p>Coastal fish such as mullets spawning and breeding may be impaired in the area.</p> <p>Mitigation</p> <p>Noise levels are kept to night standards (45 dB Levels) during the breeding period of July and August.</p> <p>Anthropogenic disturbance during the night may have an impact on the beach</p> <p>Mitigation</p> <p>Noise levels are kept to night standards (45 dB Levels)</p> <p>Anthropogenic disturbance during the night may have an impact on coastal fish populations</p> <p>Mitigation</p> <p>Light and Noise levels are kept to a minimum.</p> <p>Anthropogenic disturbance during the night may have an impact on coastal fish populations</p> <p>Mitigation</p> <p>Light and Noise levels are kept to a minimum.</p> <p>Light and Noise levels are kept to a minimum.</p> <p>Noise level will scare the marine birds from resting and feeding on the beach.</p> <p>Mitigation</p> <p>Anthropogenic disturbance should be minimized.</p> <p>Changes in the coastal hydrodynamics</p> <p>Mitigation</p> <p>Beach nourishment is recommended for lost sediments to maintain beach sediment balance.</p> <p>Mitigation</p> <p>The beach profile must be maintained.</p> <p>Beach sediment nourishment for sediments lost to wave action</p> <p>Storm surges even 50 km away from the beach will impact the shoreline.</p> <p>Mitigation</p> <p>Build wave breakers to dissipate the sea wave energy away from the coast line</p> <p>Karachi has been placed in Seismic zone 2B. The earth quakes can occur on the fault zone at an intensity of 4-5 on Richter scale</p> <p>Mitigation</p> <p>Build structures that can with stand seismic activity of 5-6</p> <p>The energy generated by Tsunami waves hundreds of kilometers away from the location can have a devastating impact on the beach.</p> <p>Mitigation</p> <p>Follow early warning messages from the tsunami centers in the Indian ocean, and have a contingency plan to move people from harm's way.</p> <p>Incidences of Picnickers drowning at are known all along the Clifton Beach during SW Monsoon period.</p> <p>Mitigation</p>
Impacts on fish eggs and larvae	Moderate		Frequent	Limited				
Impacts on invertebrates	Moderate		Medium	Limited				
Impacts on fish	Moderate		Frequent	Limited				
Impacts on mammals	Moderate			Limited				
Impacts on birds	Moderate		Frequent	Minor				
Coastal Erosion	Moderate		Frequent	Major				
Cyclones	Moderate		Frequent	Major				
Storm Surges	Moderate		Frequent	Major				
Seismic Activity	Moderate		Medium	Limited				
Tsunami	High		Rare	Major				
Drowning's at Sea	Moderate		Medium	Limited				