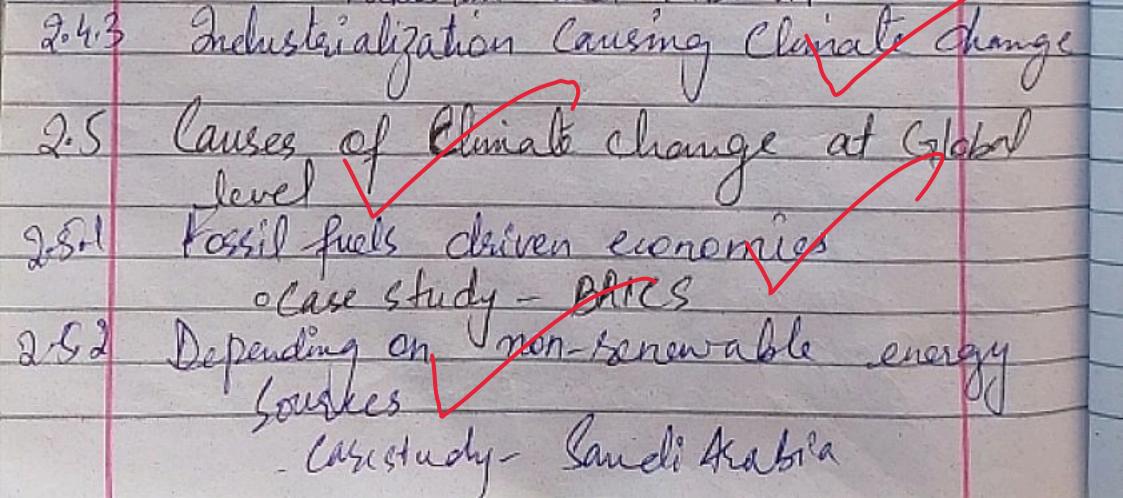
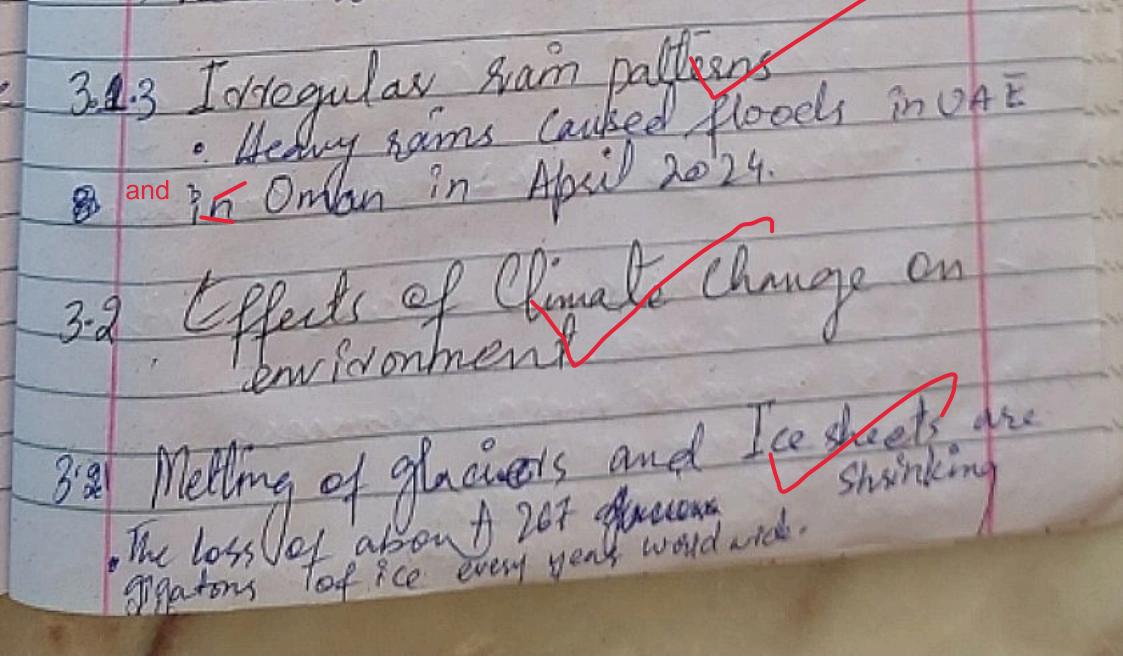
Well attempted Keep practicing Climate change: Causes and Consequences Outline Introduction 1 HOOK 11 General Statement 1.2 1.3 Thesis Statement: Climate change, caused by factor like greenhouse gas emissions and land use changes leads to significate global challenges, including extreme Weather events, signa Usea levels and dissuptions in eadystams and human Bocieties. 2 Causes ef climate Change Natural Causes 2.1 Volcanic esuptions 2.1.1 ons in Fluctuate 2.1.2 Tectonic Shift 2.1.3 driven gauses of Juman 2. 2 at social leve Change Jestati Cutting down 2.2.1

(2)Constructions of societies or buildings for living. Transportation - Buining of Jossil fills. Electricity generation 2.2.2 2,2.3 2.2.4 Causes of Climate Change of agriculture cector 2.3 Methane zas emissions cone from livestock, sice culturation Micsobial decomposition of festilizers produce a greenhouse gree-Nitrous cride 2,3. 2302 Causes of climate change at 2.1 Excessive carbon emissions by developing Countries - China-case study Ineffective Natural Disaster 20401 2.4.2 Management Authorities Pakistan and NDMA



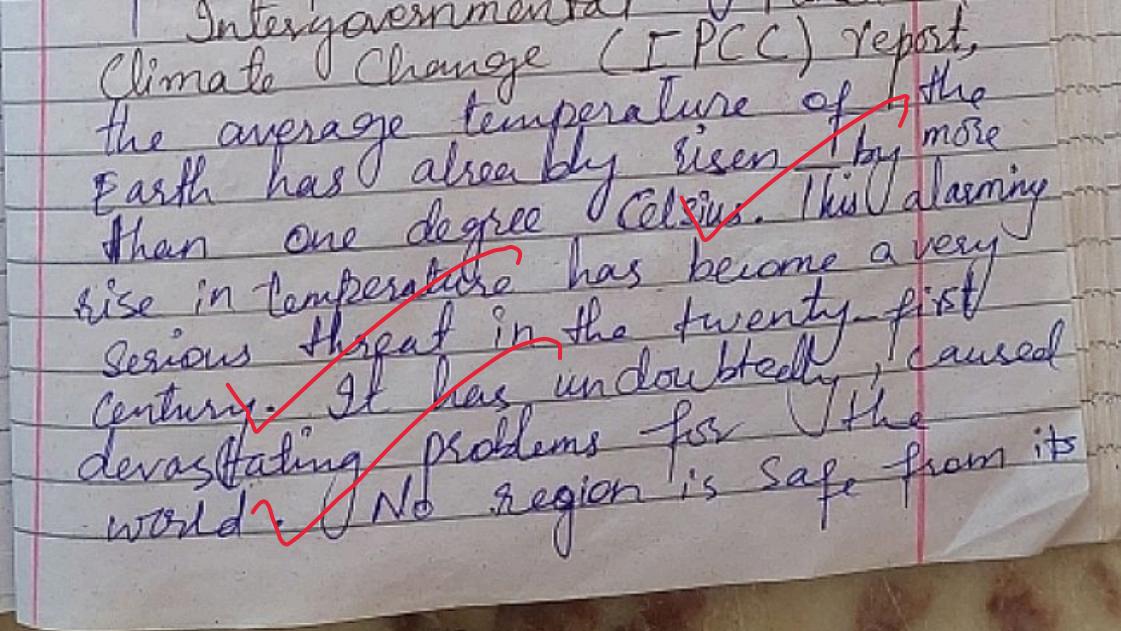
253 lack of accountability for breach of ment international agreements enforcement of Paris Arcad 3 Consequences of Climate change 3.1 Consequences/effects of climate Change on weather 311 Highes average lempesatures Case study: Asia; en July 16203 the Persian (Crule International Aipst In Jran Reposted a heat index of 152°F (66.7°C) Intense heat waves · Saudi Arabia (During Haji) 14 to 19 June 2024, Jat least 3.1.2 1,301 people died due to extreme heat waves - 51.8°C



4 · Antaitica lost about 148 billion tons of ice per year Sea level sisis 8-9 inches bisis in scalevel 3.22 Increased droughts Ocean acidification is increasing loss of aquatus perice 3.9.3 9:24 2.25 The world is tosing sportering Effects of Climate change on humans 33 Rising health problems • Air pollution - respiratory diseases, Stokes, and heart attacks • Malnutsilin 3.31 duseasing. He migration of people. 3.32 Migriadium of amongs and birds 333 Shanking economy 3-34 mereacing peresty 3.45 Effects of Climate change on agriculture 399 food Shortages 3.4.2 Reduce soil heath 3-41 Remedial measures to combat with Clinate change Use of renewalste energy resources. 4,1 Improving energy efficient Changing agriculture prochice To inidate a global refrestation compargn 4-3

To antsof population explosion The implement climate change agreements 4.6 in the spirits. To provide economic, food, and technological assistance to the climate hit 4.7 assistance to the clima contines. onclusion

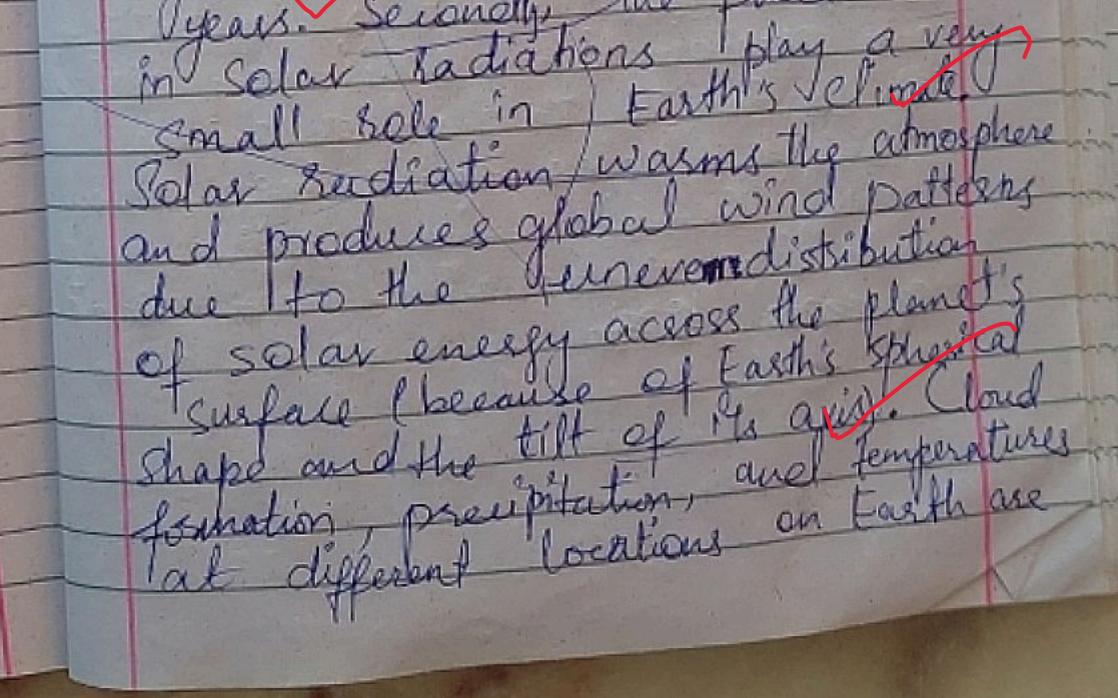
The President of the United States of America Basack Obama once said, " These's one issue that will define the contours of this century more dramatically Than cury Oother, and that is the Jurgent threat of a Changing climate" Climate Change being a global phenomenon has become a controversial issue. Climate oris a long-term shift In average temperature and weather is the beginning of the industrial era, the change in climate has been observed primarily ---driven by human activities like the Vercessive burning of loscil fuels. According to Intergovernmental Upanel or



effects. Some of the most important "Consequences of Climate Change ve sising Earth's surface temperature Sising Sea levels, heavy floods, and shanking ice sheets Moseover Changing weather patterns, box Janger Wildliges and kequent droughts. Amale caused by factors like greenhouse gas emissions and lind use Changes, leads to cignificant global challenges, including extreme weathers events, fisme sea levels, and dissuption to ecosystems and human Societies

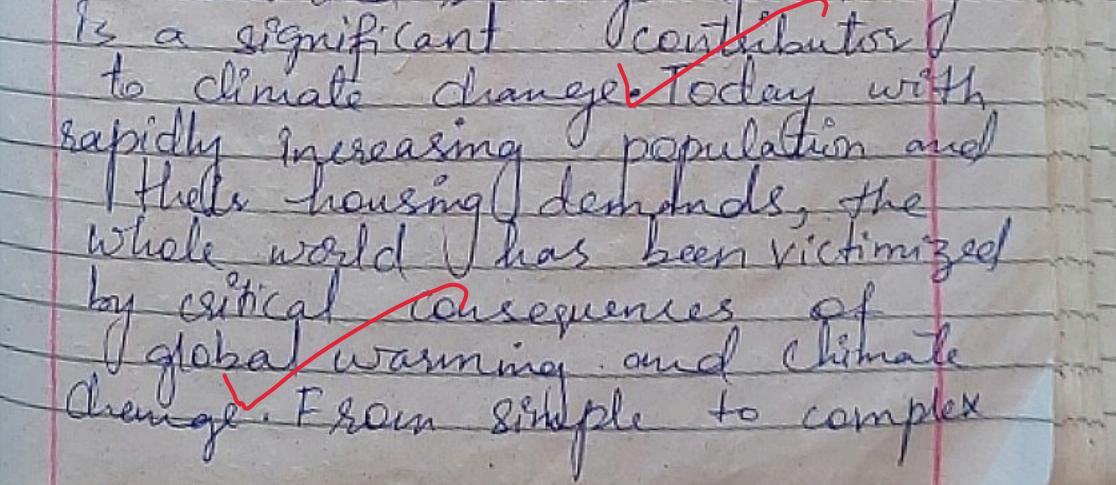


The causes of climate chamge stem from both natural factors I and human activities. Firstly volcaric esuptions are an empishant netaal cause of climate change the dispessal of gase, aerosols and ash particles by volcanic emptions plays a majos sole in the climate sutt One of the key gases seleased during an aduption (18 Sulfue diaride, ) which I can form sulfate accorder These decosols' reflect sunlight away from the Easth, leading to a temporary cooling effect on the planet's I sueface For instance, the Resuption of Mount Pinatubo in 1991 Caused global temperatures to deep ther a compte of by about 0.5°C years. Secondly the fluctuations



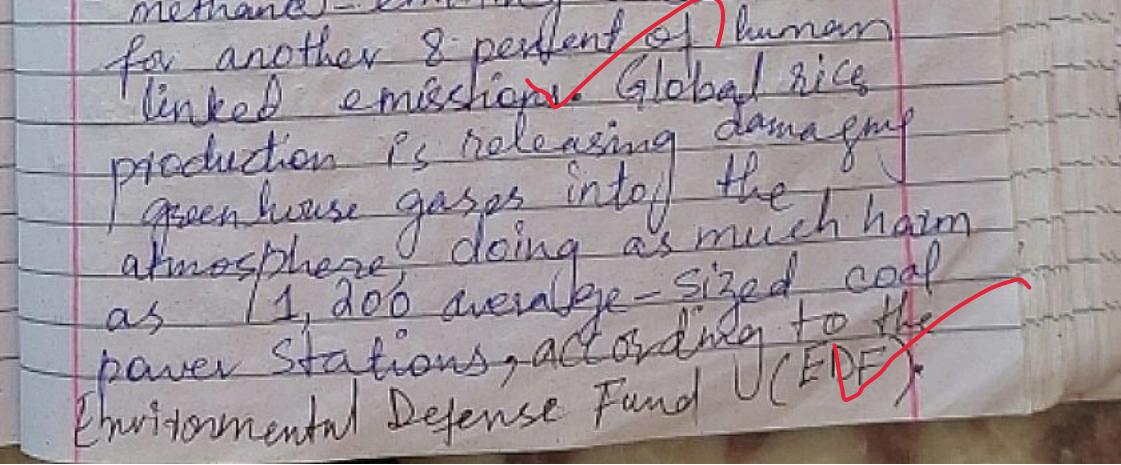
all directly influenced by the Sum. The for Earth's climate, Climated Changes Caused by the sun take place one much balager Spans of Itime, hundreds of thousands of years, versus the sapid Warming I we have Leen experiencing in retent derede Lastly, tectoric plate movements, are la natival cause of climate Change that can affect the Earth's climate area long geological timescales to teltonic plates shift, they after the positions of continents and ocean currents, which in tur influences global climate patterns. For example, the formation of mountain ranges due to tectorit collisions can affect wind patterns and precipitation, while the deleting of continents toward or awar from the poles can change much sunlight they serve impacting temperature and Morrow With

Climate Change is driven by a combination a natural processes and human activities, both of which have a protound impact on the Earth's dimate system. Firstly, aluman driven causes of climate change is the cutting down forest. Deforestation is a Significant human induced cause of Climate change, Trees and firests act as carbon sinks, absorbing carbon diaxide (co) from the almosphere . I. during photod synthesis when forests are cleared or burned, the stored cashon is released back into the atmosphese, increasing the containing of greenhouse gastes, which contributes to global warming. Similarly, the construction of Societien and buildings for history



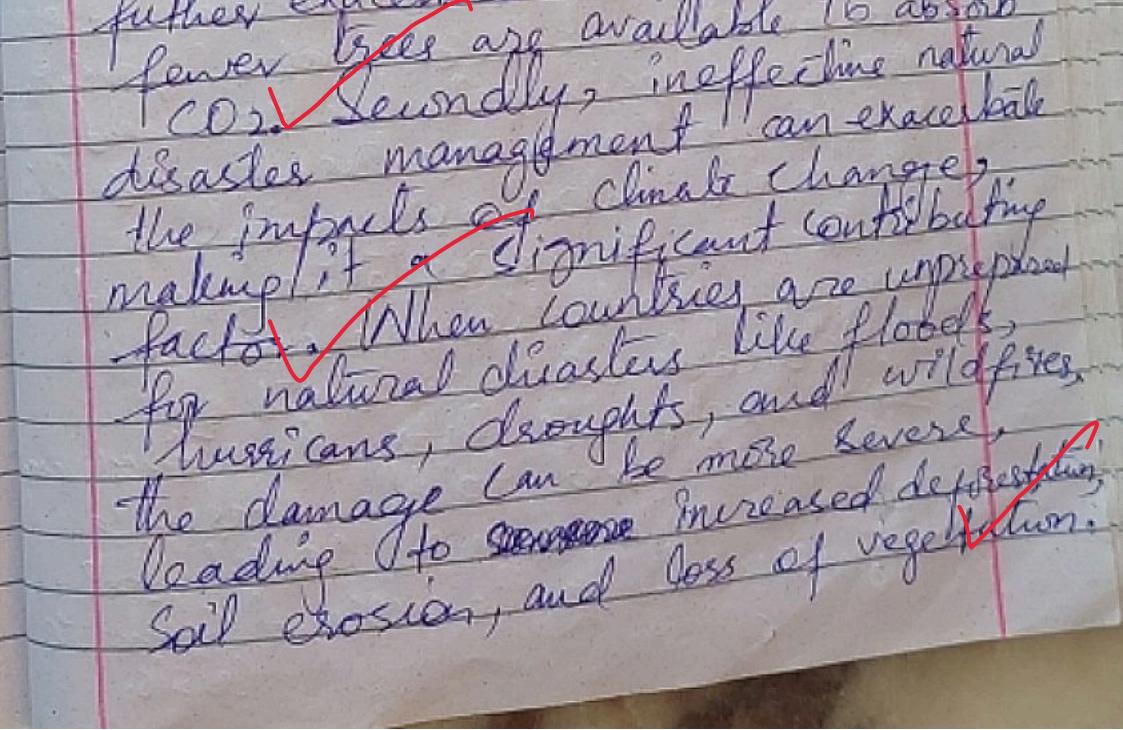
Construction, materials being used only consume massive endergy and resources during their ycle but also deteriorate the environment releasing an enormous amount of dust, solid wast and greenhouse gases, Allording to TPCC in 2010, buildings accounted for 32"1. of the take global climate change to occur. Additionally, burning fossil fuels is one flot the primary causes of climate change, the Jamme of fossil fuels for transporting is a major cause of climate change, Jas cars, tyteks, airplanes and Ships release significant amounts of carbondioxide and ather greenhouse gases leading to an increase in global temperatures Flashy, generating electricity plays I'a large part in bare have gauses; appartmately Three-quaters of elektricity generated in the LIK comed from fossil fuels. Hence, bugning fossil fuely-coal, oil, or gas - V causes of large chunk of greenhouse gaps that blanket the Earth and hap the switheat

Agriculture also plays an important Sole in climate changle. Agriculture accounts for an estimated for the 45 percent of total methane emilions which is a greenhouse gove Firstly Livestock such as cows, sheepand ( goats produce methane during digestion (enteric fermentation) This potent greenhouse gas is about 25 times more effective at trapping " heat in the atmosphere than I carbon dioxide over a loo-year posiod in Secondly agriculture methane doesn't only come from animals, though Paddy & sice altivation is the second largest contributor of aggicultural methane emission In which flooded fields prevent axygen from peretrating the soil, creating ideal ionditions for methand emitting bacteria - accounts of hunan

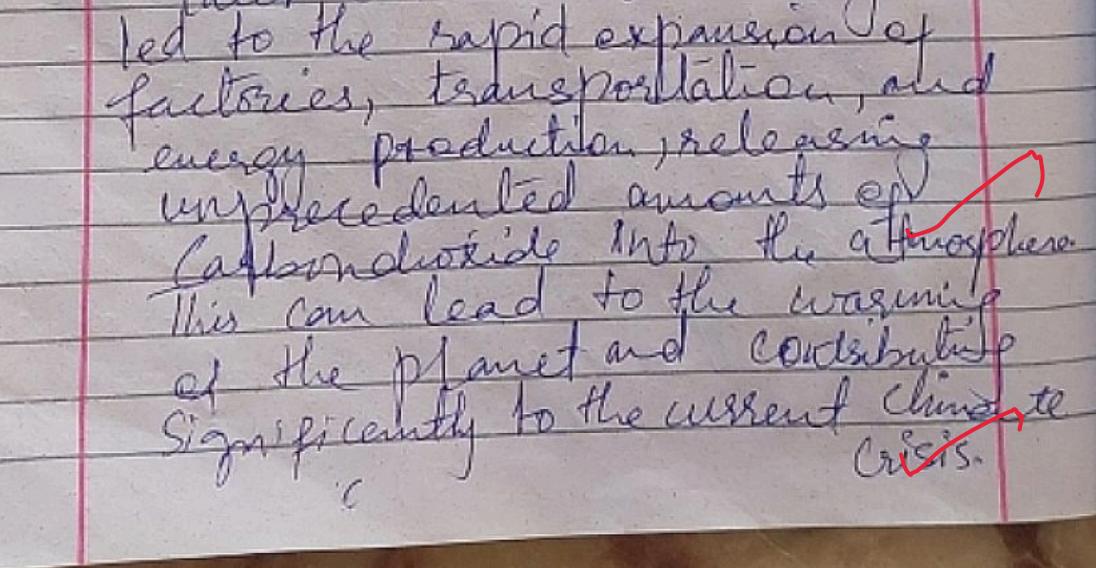


63 Lastly, microbial decomposition of festilizers is a cause of climate Change. It releases greenhouse gases into the almosphere on The last century, thingm-mack festilizers have greatly boocked crop production, letting farmer grow more food on less and But this uptick in festilizers use has led to increased greenhouse gas quiesions, making agsimilture alle second - largest Course of climate champe pollution. Maeover, making amonia - a festilizer, requires high pressure and temperature which carsumes a lot of every. Most of this energy conest from busning fossil fuels the releasing Caspordieride. denels Chinate Change Have manufacturing and application of lestiliter has a hea , which emission toll nea Cause climate Manop

(4) Along with agriculture, excessive carpon emissions by developing countries are increasingly contributing to climate change It is these Countries undergo Rapid industriation and icobanization, they often hearly of an fossil fuels for energy. I This results in a Significant merease in carbon dioxide and other greenhause gases in the almosphere. According to climate Action Hackey in 2022, Olina was the largest chinate polluter, making up. nearly 36% of global Jemisions. Additionally, I defosestation and land-use O'changes in these regions futher exacestate Uthe problem, a fener trees are available to absorb

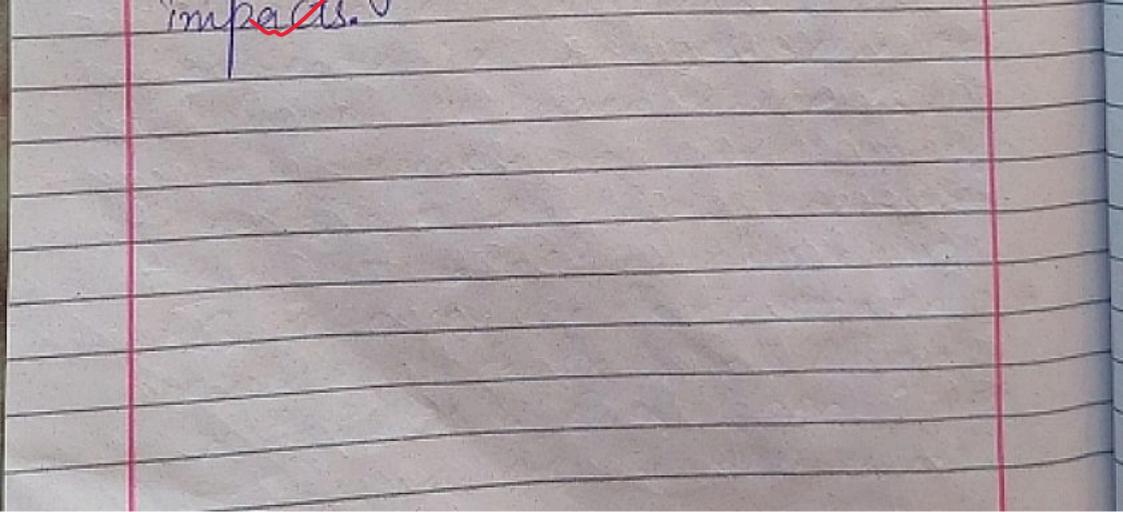


this, in turn, reduce the planet's ability to absorb larbon didkides contributing further to greenhouse gas accumulation to metance, in paleistan National Disaster Management, Authority (NDINK, Despite the NDMA, the country presently faces floods doughts theatwares and other climate induced disasters lastly, the industrial revolution of which began in the late 18th century, malling a significant turning paint Vin the history of JCD2 Lemissions and the cuset of human-induced climate change. During this period, there was a J marsive sulft from manual labor to machine based manufacturing, powered primary by coal and I fater oill and natural gas This

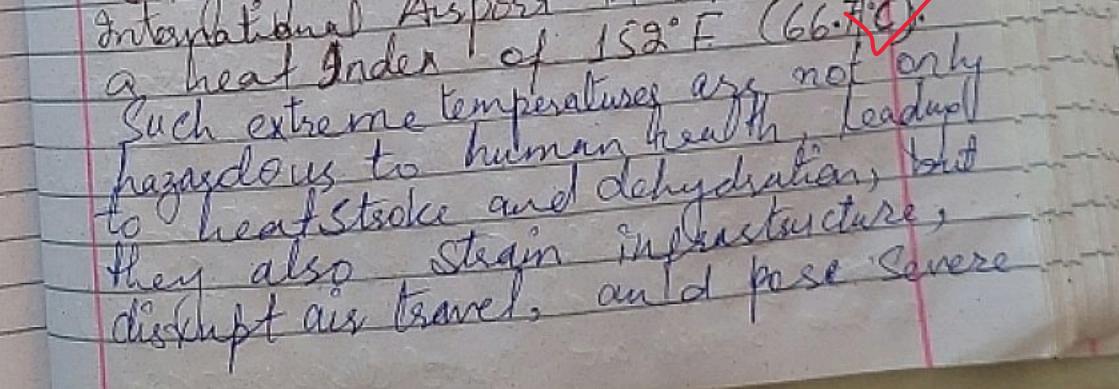


(16) Basides, industrialization, the BRICS Bragil, Russia, India China, and South Africa) economies play a crucial sala global Change Change due to this Schance on fossil for Eistly China and India , for instance, and among the largest consumers of coals which has led to severe air pelitica and high Carbon emissions Similarly, Russia's economy depends heavily on all and gets production, contracting Complicantly to get nhouse gave. Brazil's deforestation of the Amagon sampolest to clear land for agricultie and mining releases & tree caston into the atmosphere According to Global Forest Watch (GEW), between 2000 and 2019 Brazil Jost approximately 500,000 Square kilometers of forest cover, contributing to glebal about april reliance on non-generable energy Sources like oil fras been a gl Significant contributor to climate change. Over the Cast few years, the cleikie energy demand in the Kingdom of Saudi Asaba (KSA) has nered many folds due to servial factor

(F) M including increased population, industricition economic activities, and urbanization. J. Almost one third of greatouse gas emissions are contributed from the electric power generation Sector, miny by burning diecel and natural gas which significantly contributes to Climate change Lastly, the lack of Strong accountability and enforcement To a slower global response to climate change, As a result, many countries are not on track to meet their emission reduction tagets, and global temperatures are seeing faster than anticipated. The gap between pledged athons and actual implementation is widening increasing the sisk of severe climate

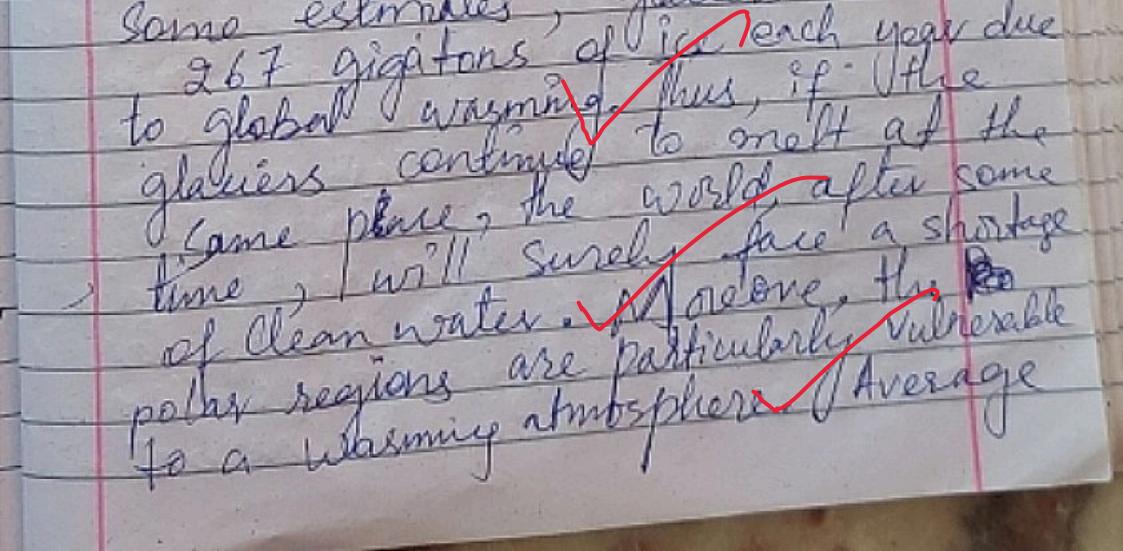


(12 Cussently, the menac of climate change has become a great geneern for ling things taking than to the prink things destruction. Moreover, it has relished Lawadays, Started to express itsolf in multiple forms, such as the rise in the number of diseases and patient disasters According to the World Research Institute (WRI), the temperature of the easth has currently silen by 11 Degree Celeius sime the industrial servolution; apart from 4 Finder it, to the International Pahel on 1 6: Climate Change (IPCC), the size in Temperature with seach 1-5-degree aliens m 12050 Climate change has multiple of consequences, the first and formest, Impact is the constant sise in temperature of the glabe. Alse in remained Aug On July 16, 2023, the Persian Gulf International Aisport in From Superter International Aisport in From Superter a head Ander of 152° E (66.757)



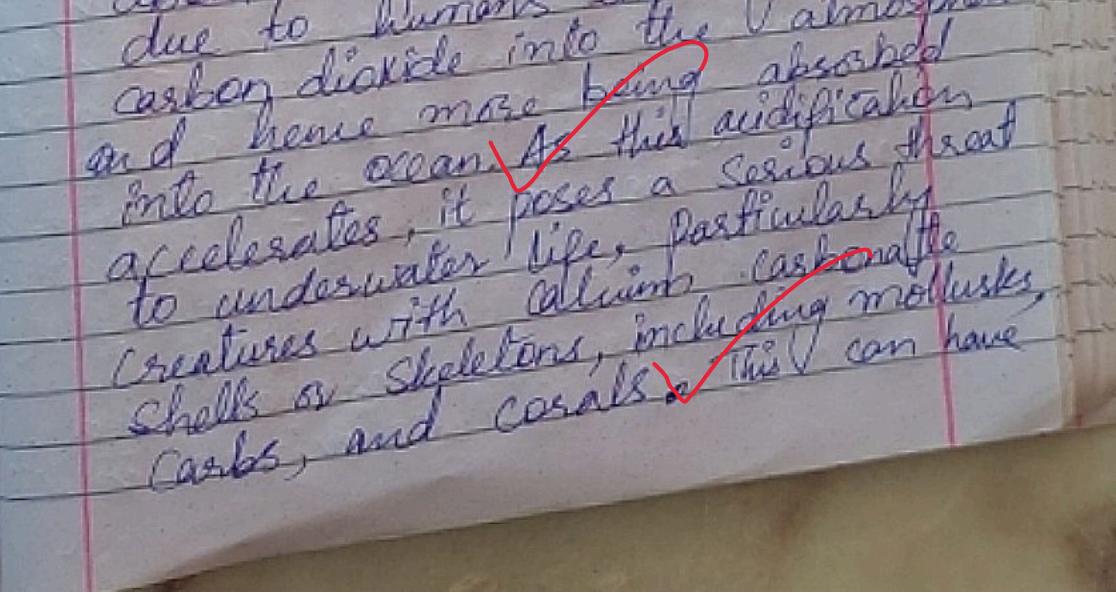
Challenges to daily life Moseover, intense heat wavels are one of the change UN Secretary General Antonio Guteres stating, "The Viera of global warning has ended. The tota of global boiling has assived." July 2023 had become the hottest month in the past 120,000 years. Fourthemore, this years Hajj tuned to scaring temperatures, which Seached Va Iblistering 51.8 Degree Celins. The deadly theatwave in Saudi Asabia is part of a bypades trend of unprecedented theat affecting " segions worldwoode: Additionally The gulas sam patterns are a crucial impact of climate change, leading to a sunge of environmental and Socio-entromic challenges have trefins experience protonged droughts, while Alley areas felle heavy simfall, resulting in flooding, Boil absig For instance, the floods wreaked hava, Resutting in deaths in the WAE and Oman in 2024 April. Over 1000 flights at Dubai's dispost were cancelled caving significant travel Assuptions.

Strilasly, Southern China faced Seven flooding in Guangdong provincenay displacing over Iloo, Jogo people. Meanwhile, norther chipsa balled prolonged droughts and treaturnes, highlighting the vasied and devastating uparts of climate change across the 1 country. The same fashion the united size in the melting of glagiess world world is the great inpact i of chinate change the gauged are the main bouse of clean water used to water plants, now regetables deink and above all have agricultural admities the mon Course of income for agrazian Countries like Palustarte And to glaciers bee about

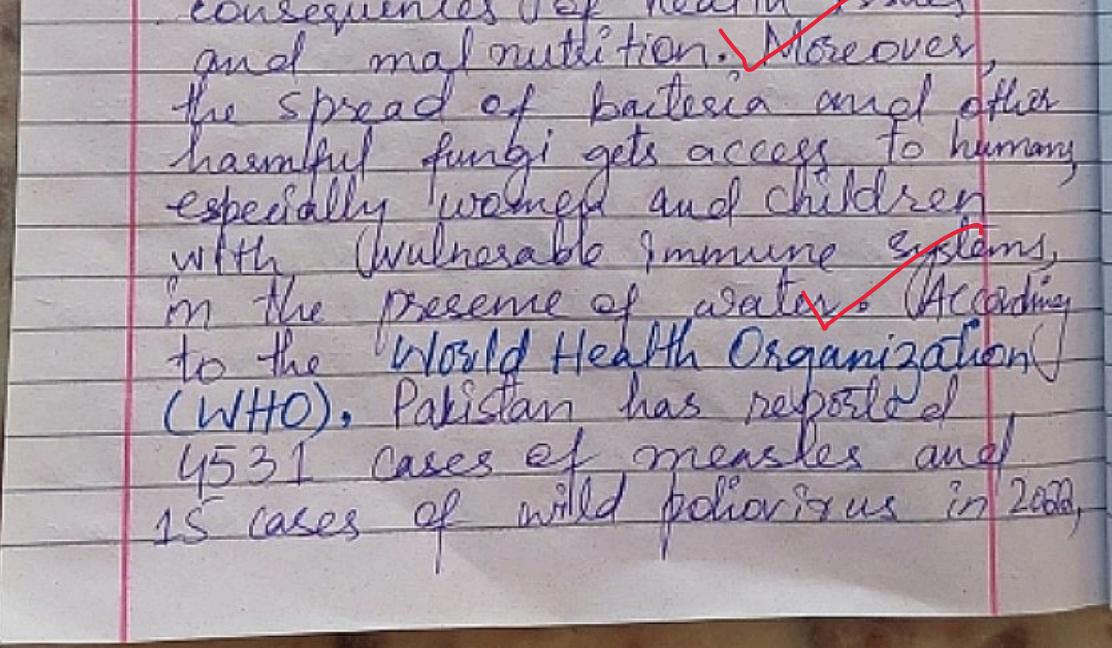


temperatures in the Aschi are sising twike as fast as they are elsewhere on earth, and the world's ice sheets are smetting fact is on rising Sea Heyels! Sea level has hisen globally by about 20 centimeters (appointely 18 mches) Give 1900. By 2500, & it's estimated our oceans will be 1.6 to 6.6 feet higher, threatening coastal Systems and low-lying areas Cenompassing entire Usland nations and the world's largest Alles, including Los Angeles, Mami, and New brie JEL, as well as Mumbai, Indiag Jaud Sydney, Austratione Additionally, Severe day spells and droughts are also caused die to the constant sie in temperature of the easth and its almosphere the drought not only make the I sail infertile ! but also cause difficulties for the formers to sew and seep their agricultural products. Norecher, Pakistan has been included by the United Nations Convention to Combat

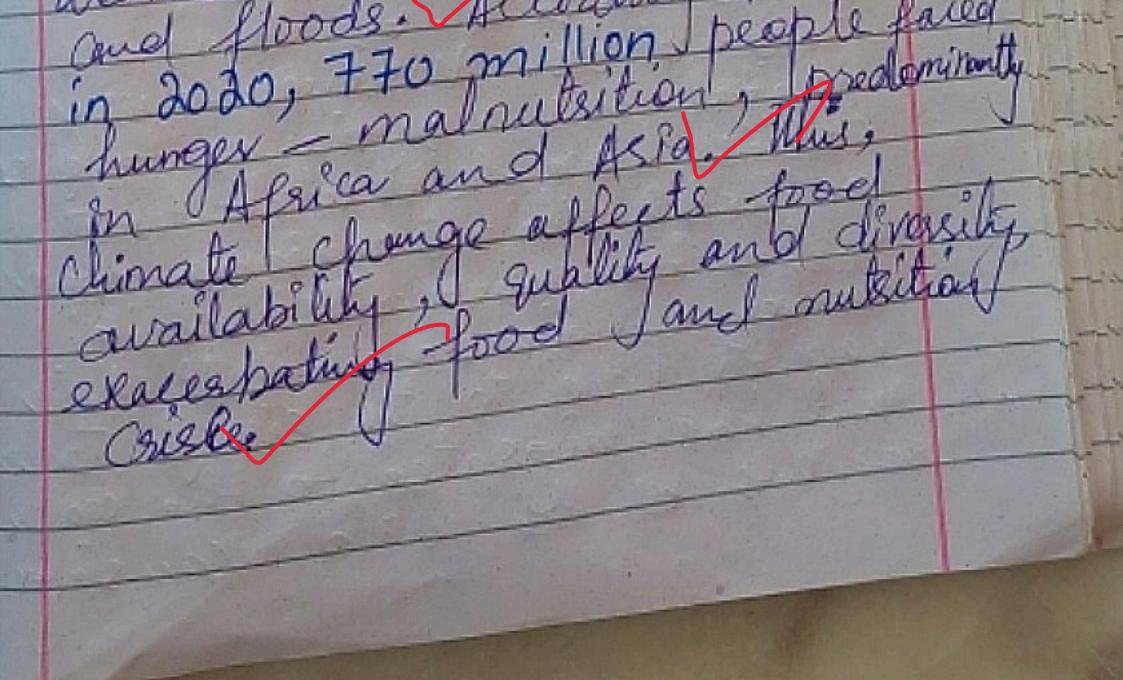
Desertification (UNCOD in the list Broch containing the top twenty three depught thit contries between 2020 and 2022, and Thay begin is one of the I major areas in Pakistan hit by the depughts and dry spelle. The overal causes the mighation of people to somewhat stable of arelas and the seduction of agricultural production causing food shortages, Thus the higher The temperature of the world, its Similarly, the earth's maxime ecosystems are under pressure as a Greenttef climate change Since the beginning of the Industrial Revalution, the Jackdity of suface ocean waters has increased by about 30 percent This inserver is Alinens emitting more



(23 a huge impact on shellfisheries. the USI shellleigh industry could lose more than \$ 400 bmillion annually by 2100 due to impacts of ocean Jaciklification Fusthermore, Rasachi's fisheries which contribute around 1 percent to Palietan's GDP and supposet the livelihood of around 500,000 People, have experienced a drop in fight eatch vater. Each speciels litie Sasdines, mackerel, and Sprimp, essential to & local diels and the economy, are seeing a 10-20 percent ( decline due (19 changing / ocean chemistry. Along with ocean acidification climate change has also the consequences Oak health issues

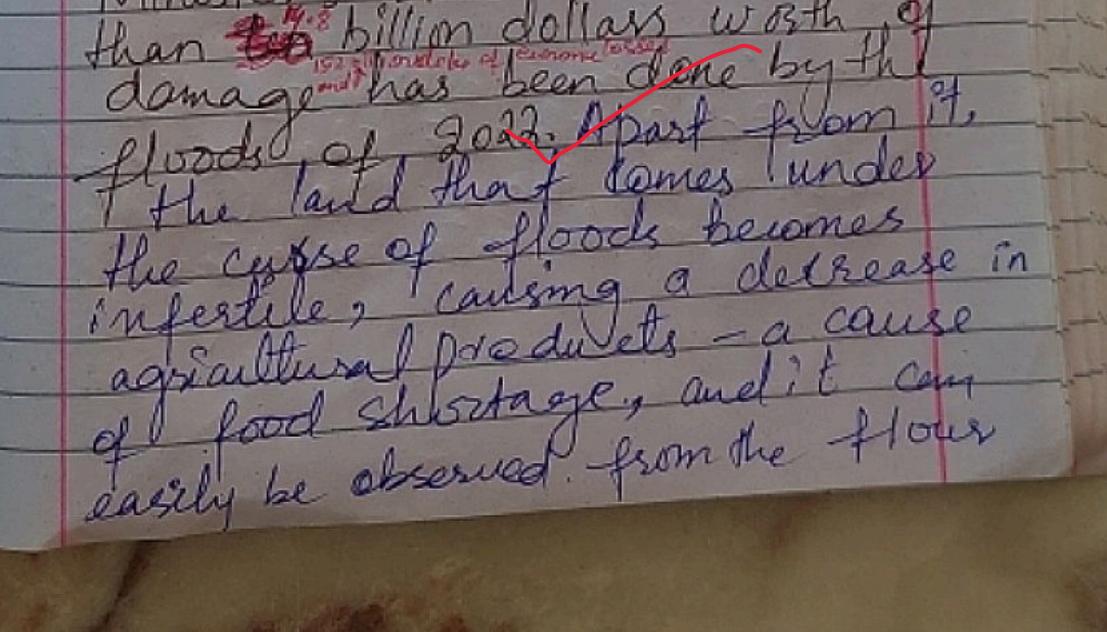


and the man factor behind the size - - - rdlindud of cases was uniontrolled gloods, Additionally, the main carle of climate change is the mening f molin fossil fuelse which also cardes his pollation Air pollution in turn I can lead to respiratory diseases, strakes, and heart attacks. According to Renewable Energy Policy Network for the 1- mar 21 st Century (REN21), more - Frin than 8.7 (million people worently the die every year, due to outdoor Vi ais (pollution Similarly health Climate Change is inpacting health in a mysiad lot ways, including. Joy leading to death and illness I from ingreasingly prequent extreme areather events, haldwares, storms, and floods. According to NHO,

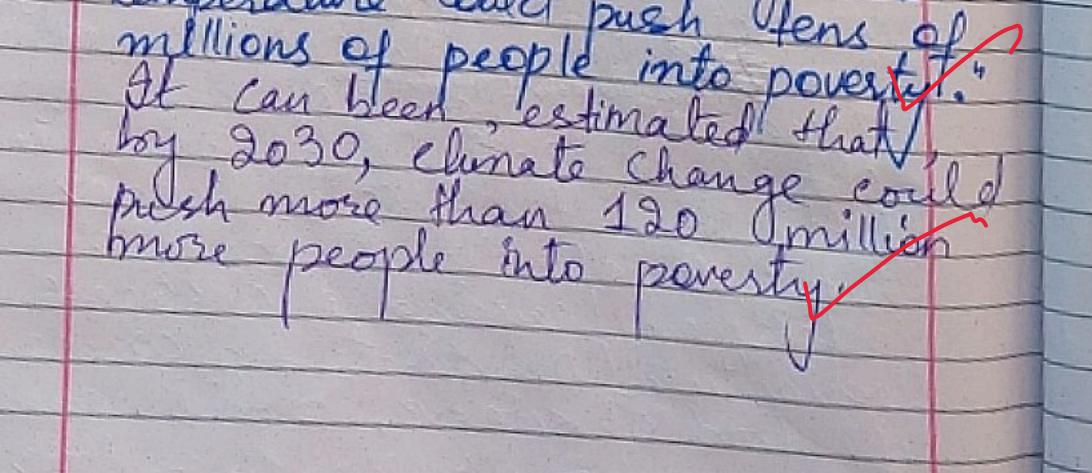


Pale 2012 Ploads Afealed 53 millim rage more stone 1730200 thinking make them & million displaced puper-us Besides health issues and maloutsition, the sise in the temperature of the world due To Climate change has compelled the movement of people than climate affected iduntiles to developed and climato unaffected countries. Reople who live in drought - hit countries or states usually migrate to somewhat Stabled contines, like the migration of people from Somalia to Haly According to the Internal Monitoring Displacement Center, weather related directers caused the internal displacement of 23.9 million people in 2019 alore. Adding more to lit, Climate change has I become a major threat to the migration of Vanimals and pixels more burg, every habitat has a particular type of species, are fulfilled by heare it that particular region tower, It has been absended that a number of buyde have left their habitats due to the sise in temperine and have migsated to the cooler regions of the world, causing

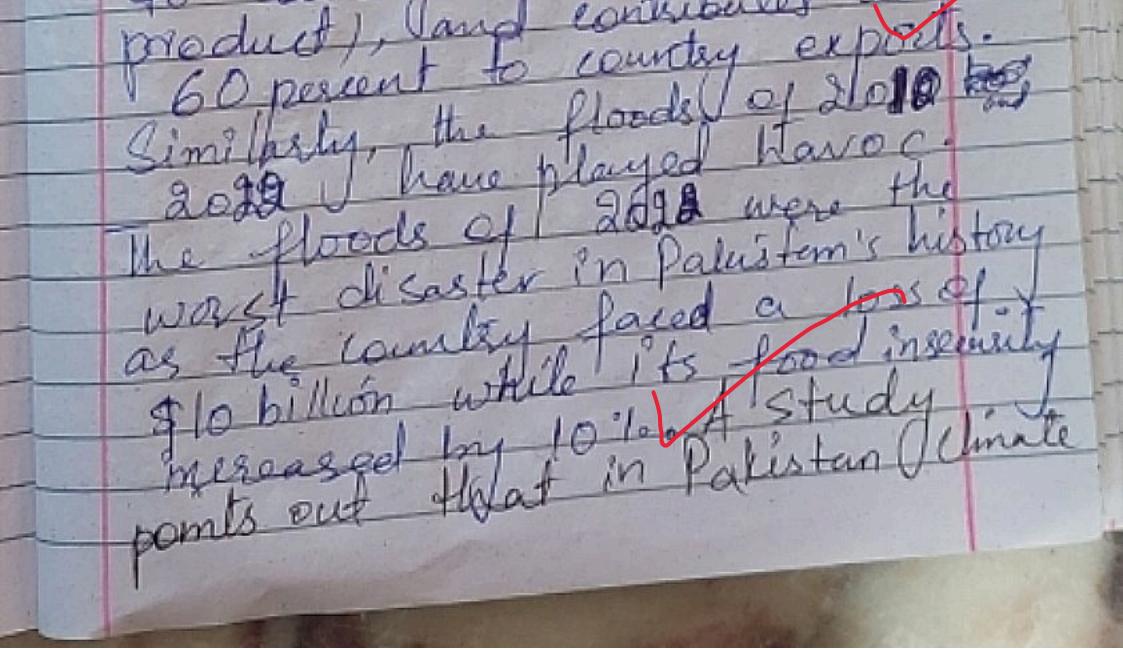
a distuspance in the equilipsium of nature A beller example is the inigration of certain I fish al solution Speciels from the Indian gear to the Antarctic segions, to the seports of 2010. Thus, if the sise I'm temperature and other neitural disastess continued at the same rate, there might be no beautiful creatures after Some times £1 she Along with migration of buds and Janimals, the ecolomy of multiple nations has come under threat due to climate changes. the disasters not only take lives but also washes agricultural areas, which can easily be witnessed from Pakiston's Planning Minister's statement that more



crises in Balochiston. Thus if floods and other natural disasters kept on increasing, multiple nations, especially the under dueloped ares would face food shorta ges. Similarly, Climate change that a profound impact on powerty. Homoge is any emergency that has been affecting the planet and its inhabitaily, V human, plant, and animal, in big and small ways towever, it has had a greater impact on the poor and developing nations due to its disploportionate influence. According to 12018 reporting the Interpovernmental Hanel V on Climate Change of the United Nations estimated that "evena 1.5 degree increase in global temperature could puch tens of

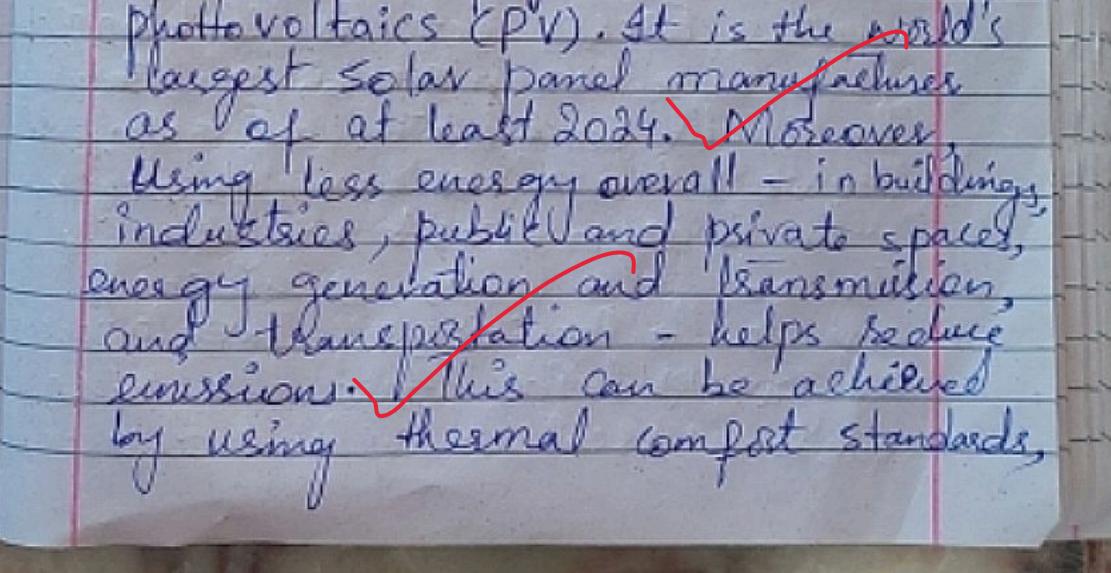


Fusthermore, global climatic change affects agrinultize and its impacts Seem to inisease daily pakistan is especially vulnerabled to climate and has been sunked as the 12th most detrimentally impacted country due to climate Uchange impacted on agriculture and livelihoods. nous Climate change has Increased temperature resulting in abrupt changes in zamfall patterns, athich likely linked to ggi withraf production, £. water, and forest tesousces on Paluston, agriculture is the prime economic sector that supports approximately 4Spercent of the country's workers, adds I pered to country's GDP (Gross domestic A, and contributes almost



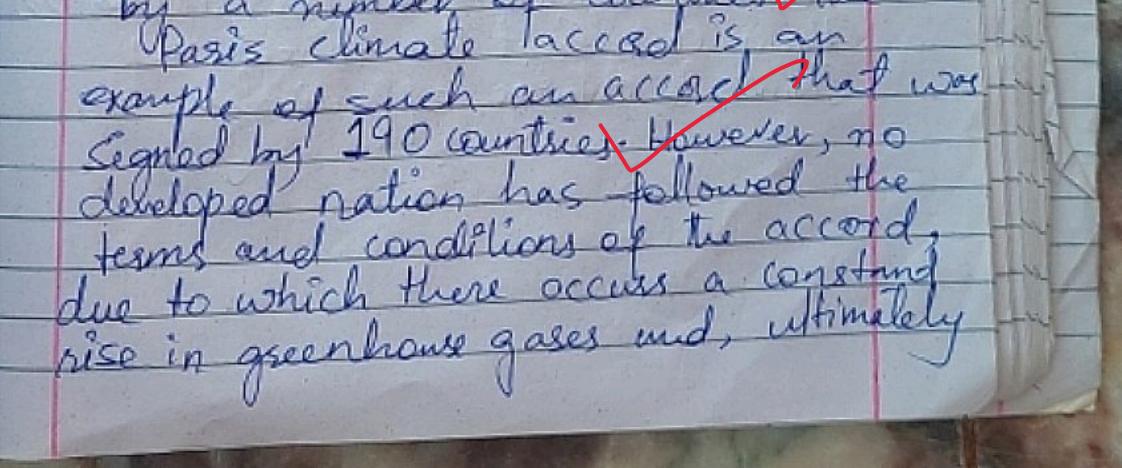
Change will decrease agriculture Productivity by 8610 percent #11 2040 and Unheat wille one of the major losers Additionly Soils kupport the growth of most plant life they are a caucial element of land beed ecosystems and agriculture Many Soils properties are afected by Changes in temperature and I sainfall If the dam is heavy enough, the soil cannot absorb it and I water flows across the surface faling a layer of topsoil with it It is eatingted that climate change will have an presubelmining impact on agrinulture theory direct ) and indirect lefterts on the evolution of africultured production, soil quality animal preeding and direasely.

39 After analysing the drastic impacts of climate change, it becomes pretty important to suggest some I meakures in order to counter the menace Fisstly, the use of renewable energy resources, like water, air, and Sun, that are free from the Belace of Green House Grases (GHGS) instead of non-renewable energy restricted producing a large amount of GHSS. Initiations for the puepose have already a been taken both mationally and Internationally, like Dassing Hydropower Projects in Pakistan, will become Projects in Pakistan, will become Pakistan's largest hydropower produces delivering 21 billion white a cleating annually. Similarly, China produces 63 polient of the world's solar



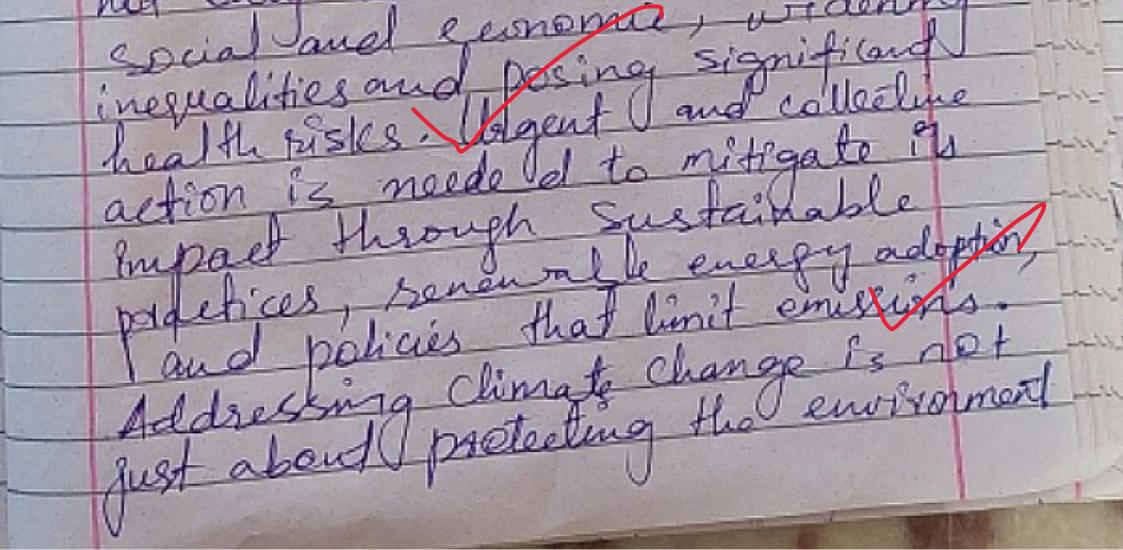
better insulation and energy officient appliances, and by implabiling building desigh, energy transmission systems farming methods release high amounts of Umethane and nitrous Oxide, which are potent greenhouse gares. Regenerative agriculturg/ practicesincluding enhancing soil health. reducing livestock related emissions direct I seeding techniques and using lover crops. (support mitigation ) Along with renewable energy resources, measures to reduce deforestation and forest decredation are key for climate mitigation and generate multiple additional benefits such as bodiversity conservation and improved writer cycles, torests act as carbon sinks, Japsorbing caspon dioxide and reducing the averally concentration of greenhouse gases In the atmosphere. Moseover, The Amazon prests are usually termed the lungs of the earth due to the provision of twentypeccal Oxygen worldnide. But they are metantly used for different pleposes,

tille paper and fireworks causing a fall for the nuber of trees and oxygen levels which overall saires and be a workchould campaign for seferestation similar to the ten-billion tree program of Pakistan Similarly, population growth, along with intereasing consumption tends to increase emissions of dimate changing greenhouse gacks. It is impossible to control the size in population whiles every state worldwide collaborates 2 with one another thus, every state must adopt the measures compulsory for the control of population gsouth. Climate charge can also be countered through the implementation of different I climate adjords simed by a number of countries The



global wasming. Thus, if the accord is Implemented find its true spisit, the developed nations would limit the Somoral of GtlGs and, uttimately, I threat of climate change can also be countered through the provision of economic, food, and technological help to the climate-lit countries. With the provision of technological help, the suffering States would become able to rebuild their infrastructure and adopt all these measures with the help of which they can counter severe floods and droughts in future. And the provision of economic help will enable them to sustain their lives on the blue planet Earth after facing dealphts and floods. help the didate - hit courtsies to that they can fight the threats of dimate change effectively

In conclusion, Monate change is one of the most threatening adeptud challenges facing humanity Jodawy, with Jan reaching lauses !! and consequences some amount of chinate change can be attributed to natural phenomena. Over the course of tarth's existence, volumin exptions, fluctuations in Solar sa diation, and tectohic shifts. have all had abservable effects on planetary warning and cooling patterns. Similarly human activities, i the particularly the mening of fossil fuels, deprestation, and industriel processes, have accelerated the to a wasming planet. Moseove the consequences of clinate change are in . not only environmental but also --in-Spia and general, widening - water maria



65 put also ensuring a safer, more Quitable future for all, emphasizing the need for global cooperation and individual responsibility A Jane Goodall (a British ethologist) wisely said, "Together, we have the Upower to Change our course and create a sustainable -future where our planet thrives for generation to come" the and

