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1. A critical Analysis of Pakistan’s Foreign policy post 9/11

ANSWER: Introduction:

 The catastrophe of September 11, 2001 has attracted the keenest interest of experts in the field of foreign policy to study the centrality of decisions taken by the states and other independent actors. The events not only transformed the global politico-security dimensions but also altered the South Asian geo-political and geo-security environment. The United States announced to attack Afghanistan and compelled Pakistan to play frontline state role in the war on terror. The present paper is intended to trace that how the September 11, 2001 terror attacks triggered the foreign policy crisis for Pakistan and what was the crisis foreign policy decision-making process in Pakistan? To answer the query, author has applied "Model of State Behavior in Crisis" proposed by Canadian born Political Scientist and crisis management expert Michael Brecher. The four-stage model effectively traced the crisis foreign policy decision making process in Pakistan, as it argues that the 9/11 terror attacks on t1 stage transformed the political and security environment at global and regional level. Immediately, after the attacks the U.S. designated bin Laden and al-Qaeda operating from Afghanistan culprits and President Bush introduced the "Bush Doctrine" to fight against global terrorism. In a televised speech to American nation he declared that from today the U.S. would not make any distinction between terrorists and those who harbor the worst evil of the day. To attack on Afghanistan the U.S. was desperately in need of Pakistan’s DYNAMICS OF PAKISTAN’S POST 9/11 CRISIS... ▫ Mehmood Hussain 159 support and Washington threaten Islamabad to bomb back into Stone Age if it chooses to go along with the Taliban and al-Qaeda. Therefore, the top hierarchy in Pakistan perceived grave threats to core values/objectives of the country and simultaneous time pressure for response and high probability of military hostilities intensified the psychological stress in the leadership at t2 stage, which provoked the foreign policy crisis for the country. The crisis management process was initiated at the t3 stage which comprised the sources of information, decisional forum, consultation and consideration of alternatives. And, the foreign policy choice was made at the t4 stage, which diffused the foreign policy crisis. II. U.S. Foreign Policy Shift towards South Asia after 9/11 Attacks Foreign policy crisis erupts with an environmental change in the internal or external context of a state. The triggering of a foreign policy crisis is perceptual. More precisely it derives from three inter-related perceptions (a) threat to basic values/objectives, (b) finite time for response, and (c) heightened probability of involvement in military hostilities(Brecher 1993). The moment of 8:46:40 marked a paradigm shift in world politics when American Airlines flight 11 collided into the North Tower of WTC, and instantly all passengers including crew members perished along with unknown numbers in the tower(9-11 Commission 2004). The terrorist attacks on the United States consumed 2996 peoples and commenced an unending war against global terrorism. Senator Orrin 160 Hatch told media reporters that U.S. found evidence that bin Laden received messages from his associates that "actually saying over the airwaves, private airwaves at that, that they had hit two targets" (Schmemann 2001). The barbarism in the U.S. transformed the image of President Bush to commander-in-chief of the war on terrorism. At 8:30 p.m. he addressed the nation from Oval office and stressed that "We will make no distinction between those who planned these acts and those who harbor them"(Woodward 2002). It was a declaration to hunt down culprits and those who helped and protect them, rather than a targeted retaliatory strike. By late evening of September 11, President Bush chaired two separate meetings. The larger meeting consist heads of domestic departments, while the smaller meeting involved the top advisors, a group later he called "War Cabinet". In this restricted meeting, the President stressed that it is time for self-defense and the U.S. must teach lesson to terrorists and those who support and harbor them. During the meeting Secretary Powell stated that the United States should send clear message to Pakistan, Afghanistan, and the Arab states for prompt action. On the following day, President Bush headed two more meetings. In the first meeting, he stressed that we are at war with new kind of enemy and directed principals to expand the pre-9/11 homework and prepare a new war plan(9-11 Commission 2004). President George W. Bush urged the world community to struggle for good versus evil. Collin Powel, the U.S. Secretary of State gave statement expecting fullest support from Pakistan. The United Nations Security DYNAMICS OF PAKISTAN’S POST 9/11 CRISIS... ▫ Mehmood Hussain 161 Council (UNSC) adopted the resolution 1368 on 12 September 2001 by unequivocally condemning in the strongest terms of horrifying terrorist attacks on the U.S. It calls upon all states around the globe to work together to bring the culprits to justice. On September 13, National Security Advisor Condoleezza Rice presided a principals committee meeting in the Situation Room to develop war strategy against Al-Qaeda. And during the meeting, principals specifically concentrated on Pakistan and concluded that "if Pakistan decided not to help the U.S, it too would be at risk"(9-11 Commission 2004). The abrupt transformation after the terrorist attacks has altered the security apparatus in South Asia and posed grave threats to Pakistan’s sovereignty and territorial integrity. Pakistan was in a dilemma to face newkind of security challenges after a drastic change in international and regional geopolitical and geostrategic environment. South Asia was going to become hotbed for the global war on terrorism after American invasion in Afghanistan. Pakistan’s eastern neighbor India had already expressed utmost solidarity with the U.S. and offered logistic support along with air and naval bases(Jamshed Ali Baloch 2014). The new Indian rhetoric undermined Pakistan’s safety and security, and policymakers were concerned that India might take a favor from emerging scenario and would attack on Pakistani Kashmir and Northern parts of the country. The territorial integrity and security of the state was at stake and it was primary responsibility of decision makers to protect the country from foreign aggression. Although Pakistan had condemned the attacks by conveying condolence message of president Pervez Musharraf on late evening of Tuesday 162 한국과 국제사회 제2권 2호 (2018 가을) (Musharraf 2006). But the events triggered an environmental change in the global and regional security landscape which provoked the foreign policy crisis for Pakistan at t1 stage. III. Key Variables of Foreign Policy Crisis The first section thoroughly discusses the environmental change in the wake of terror attacks on WTC and Pentagon. While, the section two empirically tests the key variables of foreign policy crisis, which are perceived by the decision makers at t2 stage. The section three elaborates the foreign policy crisis management process in Pakistan, which began at t3 stage, and the final policy choice ensues at t4 stage. 1. High Probability of Military Hostilities and Threat to Core Values/Objectives The probability of war, more precisely involvement in military hostilities or, in an intra-war crisis, the likelihood of an adverse change in the military balance is another attribute for a crisis situation. Whatever the context, it is uncertainty about value threat, war or adverse change in the military balance, and time pressure that generate the foreign policy crisis. Capabilities have varying consequences for the use of violence in crisis(Brecher 1996). The Post 9/11 scenario exposed that, there was a high probability of military hostilities between Islamabad and Washington, if the former stay neutral or choses the Taliban in the war against terrorism. DYNAMICS OF PAKISTAN’S POST 9/11 CRISIS... ▫ Mehmood Hussain 163 Military balance was highly favorable to the U.S. as it retains the global reach military with modern warfare technology. While Pakistani military was much vulnerable and was facing difficulties to acquire hardware and weapons system. The morale of the military was already in doldrums due to Kargil adventure where American pressure forced it to retreat. Although, Pakistan was modernizing military, but sanctions imposed by the Washington were creating troubles to acquire military weapons and hardware. Most importantly, after the nuclear explosives in May 1999 Washington withhold the delivery of F-16 fighters purchased by Pakistan which severely damaged the warfare capability of Pakistan Air force. "Threat concerns harms or losses that have not yet taken place but are anticipated"(Folkman 1984). It may be active or passive, strong or weak, and central or peripheral to one’s values. The ICB project researchers argued that foreign policy crisis began when policymakers perceive that basic values are under threat. The basic values are further divided into core and high priority values. The core values are closely linked with the state itself, regardless of the specific government in power-such as survival of a state and its population, the prevention of grave damage through war. The high priority values "derive from ideological or material interests as defined by the decision-makers at the time of specific crisis"(Jonathan Wilkenfeld 1988). The later incorporates the decision makers concerns for their reputation and ability to remain in power. Thus, the political considerations are seen the potential object of threat and a source of stress for decision makers. 164 한국과 국제사회 제2권 2호 (2018 가을) In present case, the U.S. intentions to fight against terrorism after the gruesome crime of 9/11 threaten the basic values/objectives of Pakistan. The President Pervez Musharraf’s speech on September 19th, 2001 identified four basic values/objectives of the country. He outlined that "our critical concern is our sovereignty, second our economy, third our strategic assets (nuclear and missiles), and fourth our Kashmir cause" (Fair 2013). The preservation of sovereignty/territorial integrity and the strategic assets were the core values. While the acquisition of military/economic assistance, recognition of military regime, Kashmir cause and the prevention of Indian influence in the war on terrorism in Afghanistan were the high priority values. 2. Time Pressure and Stress Development Time pressure is closely associated with uncertainty, notably about intentions of the adversary, balance of capability and the quality of information to be processed. In essence, it refers to the available time for a decision in relation to the deadline for choice. Time pressure is likely to be greater when decision makers are uncertain(Brecher 1993). It plays indispensable role in decision-making process, if decision makers perceive that enough time is available for the decision they might extensively discuss every alternative and chose the best decision with higher expected utilities(Robert S. Billings 1980). The crisis situations pose time constraints on decision makers to take urgent and immediate decisions. This is also true in case of Pakistan’s post 9/11 crisis foreign policy decision(Jaspal 2017). In a meeting with DYNAMICS OF PAKISTAN’S POST 9/11 CRISIS... ▫ Mehmood Hussain 165 selected group of retired army generals, veteran diplomats, and politicians, on 18th September Musharraf stated that the decision to extend "unstinting support" to the U.S. was taken under tremendous pressure and a possibility of a direct military action by a coalition of the U.S., India, and Israel against Pakistan. Similarly, answering to a question about lacking of a cross-section consultation, he mentioned that a short deadline was given for decision(Abbas 2015). The concept of stress is even more extensively discussed in the health care fields, but it also employed in economics, political science and foreign policy studies(Folkman 1984). Crisis for foreign policy decision develop acute stress in decision makers. The individual stress model identifies that stress in decision makers derive from perceptions of threat and time pressure(Tanter 1975). It not only threaten collectives, organizations and nations but their individual members and citizens as well(North 1962). The more severe the crisis, the greater the stress, all other things being equal since stress is positively associated with the severity of the threat, shortness of time, and degree of surprise, all of which increase the felt need for decision and response(Raphael 1982). Pakistan’s post 9/11 crisis foreign policy decision-making process revealed that core values/objectives of the country were threatened by American officials, which augmented the psychological stress in decision makers. In a telephonic conversation, the U.S. Secretary of State Collin Powel questioned Pervez Musharraf either you are with us or against us. Similarly, on September 12, President Pervez Musharraf received a call from Wendy Chamberlain, the U.S. ambassador to Pakistan expressing the hope that Pakistan would come on board and extend all its 166 한국과 국제사회 제2권 2호 (2018 가을) cooperation to the U.S. in bringing the perpetrators of the terrorist act to justice. President Pervez Musharraf recalled the psychological stress by commenting his anxieties that in case of any delay in the decision, it was apparent that Washington would attack on Pakistani territory and jeopardize the strategic assets(nuclear & missiles)(Ranjha 2016). IV. Crisis Management Process The crisis management process began at the t3 stage which includes the search for information, decisional forum, search for foreign policy alternatives and selection of foreign policy option from alternatives (Folkman 1984). 1. Information Sources The primary step in coping process is search for information by decision makers about the threatening act, event or change. They may employ ordinary or special channels to probe and it might be modest or marginal, thorough, depending upon the level of stress(May 1975). Pakistan had employed both ordinary and special channels to acquire information about terror attacks and the future course of actions by the U.S. The then Director General of ISI Lt. General Mahmood Ahmad was happened to be in Washington for high-level talks. Prior to 9/11, he held top-level meetings in the White House, the Pentagon, the National Security Council, and with the head of the CIA George DYNAMICS OF PAKISTAN’S POST 9/11 CRISIS... ▫ Mehmood Hussain 167 Tenet, and Marc Grossman, the under-secretary of state for political affairs(Brechear 2004). However, the terror attacks abruptly transformed the entire politico-security milieu for Pakistan. The attacks by Al-Qaeda operatives triggered the crisis situation and it require steady analysis of emerging situation in the White House(Yamin 2014). Initially, Pakistan received information through the news in electronic media, however later special channels were employed to obtain future discourse of U.S. foreign policy towards South Asia in general and Pakistan in particular. In this regard, the then DG ISI and Pakistani ambassador to U.S. had played crucial role. General Mahmood held meetings with the deputy secretary of state Richard Armitage and the pentagon officials. After meeting he relayed the terse message to President Pervez Musharraf, and that the United States had made its mind to fight terrorism and it require fullest support from Pakistan including; the intelligence and logistic. 2. Decisional Forum Richard Snyder argued that crisis situations lead to the closer integration of foreign policy-making group, the identification of values, and adaptive innovation(Snyder 1963). Crisis management also requires the creation or activation of a decisional forum. As with other aspects of information processing, changes in the intensity of crisisinduce stress which affect the patterns of consultation, the search for and evaluation of alternatives, and the type and size of the decisional unit. 168 한국과 국제사회 제2권 2호 (2018 가을) The researchers in foreign policy analysis introduced three major decision making patterns. Irving L. Janis introduced the groupthink in 1972. He argued that groupthink stands for an excessive form of consensus seeking among members of high prestige, tightly knit policy-making groups(Paul't Hart 1991). He noted that key decisions are often made in small groups often five to twelve members, in which there is a high degree of cohesion. The disagreement to group decision and consideration of alternatives often suppressed by the group cohesion. Secondly, the Governmental Politics Model (Bureaucratic Politics) argued that foreign policy decisions are being made by many actors rather than aunitary actor. The actors involved in foreign policy decision represent different governmental agencies and focus not on a single strategic issue but on many diverse problems as well(Zelikow 1999). The rational actor model (RAM) often uses in the making of foreign policy decisions. It refers "to a matter of selecting among a set of given alternatives, each of which has a given set of consequences. The agent selects the alternative whose consequences are preferred in terms of the agent’s utility function which ranks each set of consequences in order of preference. In an uncertain world, the decision analyst maximizes expected utility"(Zelikow 1999). Contrastingly, the present study discover that Pakistan neither employ "RAM" nor the "Bureaucratic Model", because on the one end abandoning support for Taliban was not the preference of Islamabad whereas on the other hand, civilian bureaucracy was sidelined and the foreign policy decision was transferred to top military hierarchy. The insights about foreign policy decision confirmed that a group of five decision makers including the DYNAMICS OF PAKISTAN’S POST 9/11 CRISIS... ▫ Mehmood Hussain 169 President Pervez Musharraf, two anonymous military generals, foreign minister and foreign secretary were dealing the crisis situation(Hussain 2016). On late evening of September 12, 2001 President Pervez Musharraf summoned the National Security Council (NSC) for a high level meeting at the army house Chaklala, Rawalpindi(Sattar 2016). The meeting was lasted about four hours and the decision makers evaluated the pros and cons of various foreign policy options. And finally the decision makers come up with the idea to support the United States in the war on terrorism(Haq 2016). Freedom of expression and opinion bear significant impacts on vigilant decisions. The independent opinions enable decision makers to consider alternatives with higher utilities and assessment of pros and cons of every alternative. However, autocratic regimes restrict the expression of opinions in policy-making process because of their zeal to retain power for longer-term(Kinne 2005). Same is true with the President Pervez Musharraf. His ambition to remain in power derives him to cut ties with the Taliban regime in Afghanistan and revive alliance with the U.S. In the NSC meeting he used extra constitutional powers to suppress the dissident opinions and retained the dominant position in decision making process(Sattar 2016). 3. Role of State Leader in Crisis Management When a predominant leader has the command to make ultimate decisions for government and such leader’s position is well known, those with differing points of view stop generally talking alternative positions 170 out of respect for the leader or fear of political reprisals. These leaders have been vastly called in the literature "Crusaders", "ideologues", "autocratic leaders", and "low self-monitors". Their dispositions are a source to guide them based on "inside looking outward" perspective on life and selectively use the incoming information to support their predispositions (Hermann 1989). The foreign policy decisions are being made quickly in crisis situations under the military regimes because autocrats overwhelmingly control the corridors of power and interdict the involvement of civilian bureaucracy. The then Chiefof Army Staff (COAS) and the Chief Executive (CE) later self-appointed President General Pervez Musharraf was in Karachi, when he was informed about the catastrophe in the U.S. In his opinion the brutalization in the U.S. equally brought opportunities and challenges for Pakistan. He promptly condemned the attacks and expressed utmost solidarity with America and employed various channels to garner information(Sattar 2016). The president had played the ultimate role in filtering and evaluating the situation and its possible implications for Pakistan. The military leadership encountered in worst crisis after Kargil war, but this time threat was not posed by arch rival India, instead it came from the most allied ally the United States. So, the president and military high commanders werefully aware of vulnerabilities on western border connecting Pakistan with Afghanistan. The decision-making process was worked under intense pressure after a change in the regional and global security dimensions. As, Janis and others have noted that key decisions are often taken in small groups in DYNAMICS OF PAKISTAN’S POST 9/11 CRISIS... ▫ Mehmood Hussain 171 which there is a high degree of cohesion(Zelikow 1999). The argument of Janis is applicable on Islamabad’s post 9/11 foreign policy decision making process, where a close group of policy makers developed consensus for a change in the foreign policy. Lt. General Rashid Qureshi (Spokesperson for President Pervez Musharraf) in an interview with Dr. Danish during a television program (SawalYeh Hai) exposed that from 1999 to 2002 president Pervez Musharraf took every decision by himself first, and later consulted with his close aides from military and federal Cabinet(Qureshi 2009). On September 13 and 14, President Pervez Musharraf presided National Security Council (NSC) and the corps commanders meeting. In the corps commander’s meeting General Usmani argued that what America would offer in return to Pakistan. But Musharraf replied that it is a matter of principle and is inappropriate to ask for a reward, but he assured that America would understand the condition of Pakistan and would help us. Lt. General Aziz expressed his concerns that a change in foreign policy would bring a domestic fallout and his concerns were conveyed to Wendy Chamberlain by explaining that in such an eventuality Pakistan would expect the United States to understand such pressure and continue to support Pakistan(Frontline 2002). 4. Role of ArmyGeneral Head Quarters and Military Intelligence The military has been a formidable actor in shaping foreign relations since the coup of General Ayyub Khan in October 1958(Hassan 2009). The threat perception from eastern and western neighbors offered an 172 opportunity to the military to turn itself a guardian of the state borders. Similarly in the post 9/11 scenario, the decision makers gave primacy to security concerns in their external relations and sphere of the foreign policy decision making was transferred to a closed group of military top brass and foreign office bureaucrats(Haq 2016). Before taking a decision, generals from army headquarters exposed the military imbalanceas compared to the U.S. because Pakistan had no indigenous resource base for military modernization and always seek external assistance. By keeping in mind its disparity and vulnerabilities, the military was fully aware that it is not rational choice to confront with the U.S. military might. In the wake of new geopolitical environment, the assessment was made on military strengths and weaknesses. History of the country exposed that time and again Pakistan turned to regional and international powers (U.S. and China) to acquire military parity with regional rival India. However, its relationship with the U.S. repeatedly fell in a trap on a number of issues particularly; its so-called Islamic bomb and the U.S. retaliatory sanctions. Prior to the 9/11 attacks, military somehow maintained the regional balance of power by employing various strategies including the low-intensity war in the Indian occupied Kashmir. However, the events in Washington D.C. and the Pentagon made difficult formilitary to continue its old doctrine towards regional security. The Indo-U.S. strategic partnership imposed the threats to ongoing Pakistani strategy to seek strategic depth in Afghanistan and the low-intensity war in Indian occupied Kashmir(Frontline 2002). DYNAMICS OF PAKISTAN’S POST 9/11 CRISIS... ▫ Mehmood Hussain 173 To discuss emerging developments in international and regional security arena, on 14th September 2001, corps commanders were called by Pervez Musharraf in a nuclear bunker built near Islamabad, believing that their talk is safe from the risk of U.S. surveillance. Nine corps commanders and a dozen of other senior staff officers from the army General Headquarters (GHQ) were in attendance, including the chiefs of ISI and MI. Musharraf gave out a cogent exposition of why Pakistan had to join America in the war on terrorism that was supported by the UNSC, or expect to be declared a terrorist state, leading to economic sanctions. Most of his commanders supported his argument, but General Mahmood remain in sullen silence, however Lt. General Aziz lodged polite disagreement; General Mushtaq was entirely consistent and honorable in dissent: and the unfortunate Lt. General Jamshed Gulzar seemed to have lost his sanity and discovered his nonexistent gallantry to join the dissenters. The voice chief of army staff Lt. General Muzaffar Usmani also registered his impolite disagreement(Abbas 2015). General Usmani argued that what Pakistan would get from America after abandoning the long-standing policy of supporting the Taliban. Musharraf replied that Pakistan should be supportive of the United States as a matter of principle, and any bargain for economic incentives would be inappropriate at a time when the United States is in a shock and anger mood(Frontline 2002). Lt. General Aziz, on the other hand, was of view that there will be a possibility of domestic backlash if Afghanistan would be attacked, to which Musharraf agreed, but he stressed that in case of any delay in agreeing to the U.S. terms, India would assist the United States. Thus, the Indian threat raised by President Pervez 174 한국과 국제사회 제2권 2호 (2018 가을) Musharraf was sufficient for the Pakistani military commanders to agree with his opinion and it took them six hours to reach consensus. Intelligence agencies (IAs) are tasked to acquire and evaluate relevant data. They are also oblige to prevent important information in wrong hands and counterintelligence. Therefore, the intelligence agencies claim that they are the country’s "first line of defense". The ISI was established in 1948 under the GHQ and operates directly under the president, prime minister and the services chief(Durrani 2007). During military regimes, ISI had increased its profile in Pakistani security and foreign policy-making process and it repeated its practice in the post-September 11 period. The then head of the ISI Lt. General Mahmood Ahmad had played a critical role in Pakistan’s decision to bandwagon with the U.S demands. He was in Washington at the time of terror attacks(Jones 2002). On the following day, at 8.00 a.m. General Mahmood called upon Director Tenet, the Deputy Secretary of State Richard Armitage and few other State Department officials. "Armitage sat beside himself with rage. He was not prepared to listen anything,(Nawaz 2008) and gave him no choice": "You are either 100 percent with us or 100 percent against us, there is no grey area"(Jones 2002). General Mahmood began talking that in past his country had faced tough times but Pakistan is not a big or mighty power. Armitage cut in by saying that Pakistan is an important country and "the future begins today," Pass the words to General Musharraf with us or against us (Woodward 2002). As the Pakistani delegation was leaving after meeting, a U.S. official startled Mahmood by swearing that a discussion is going DYNAMICS OF PAKISTAN’S POST 9/11 CRISIS... ▫ Mehmood Hussain 175 on regarding the possible use of nuclear weapons on a target possibly in Afghanistan(Nawaz 2008). Mahmood reported somberly to Musharraf that Armitage had threatened to bomb Pakistan "back into the Stone Age" if they sided with the terrorists(Musharraf, 2006). Musharraf instructed him to assure the Americans that they would get what they wanted. At 3.00 p.m. Armitage held a second meeting with Mahmood and Lodhi and this time he handed over seven demands to Mahmood. The next day on 13th September, Lt. General Mahmood along with Pakistan ambassador Lodhi again met with Richard Armitage. When Armitage inquired about Pakistani response, Mahmood stated that "all the demands are accepted to us"(Hussain 2007). Deputy Secretary surprisingly looked at him and stated that these are most powerful words, but the head of ISI replied that he knows the mind of the president and he is speaking on behalf of him(PBS 2002). 5. Role of Ministry of Foreign Affairs (MOFA) The post September 11, foreign policy making process was a top-down process in which MOFA was acting on guiding principles of president. The MOFA issued a routine condolence statement with an expression of grievance and sorrow for victims and their families and setup communication channels with Pakistan embassy in the U.S. for further information, but it only prepared briefing reports for the president. Foreign Secretary presided internal meetings for assessment of the attacks and implications for Pakistan. It is exposed in interviews with foreign office officials that from very beginning MOFA was ready to support the U.S. war on 176 한국과 국제사회 제2권 2호 (2018 가을) terrorism(Khan 2016) because in their opinion it was clear and straight away scenario that a big disaster had happened and culprits should bring down to justice. As far as foreign office role is concerned in decision making, eventhough the foreign minister and foreign secretary were present in the initial decision making meeting but they were restrained to express dissident opinions. On the contrary, to please dictator both individuals from the ministry immediately agreed on the analysis of President Pervez Musharraf and assured him for their fullest support. On September 13, 2001 foreign minister Abdul Sattar presided a high level meeting at foreign affairs office to review the emerging situation, and after meeting he responded to media questions by stating that Pakistan would avoid any direct confrontation with the United States, which exposed that the ministry had already acquiesced the decision made by the state leader V. Consultation and Alternative Policy Options The inflow of information about a foreign policy crisis leads to consultation with colleagues in the political élite, military and bureaucratic advisors, and possibly others from various interest groups. Consultation may be ad hoc or institutional, frequent or infrequent, and may take place within a large or small circle. However, in case of Pakistan the government began consultation process after adjustment in foreign policy of the country. The President Pervez Musharraf held several meetings to develop consensus for new foreign policy decision. On Wednesday the foreign minister Abdul Sattar DYNAMICS OF PAKISTAN’S POST 9/11 CRISIS... ▫ Mehmood Hussain 177 presided a meeting of senior officials in Islamabad and review the regional developments in the wake of terrorist attacks and its possible implications for the country(The News International 2001). On September 13th the then interior minister Lt. General ® MoinUd Din Haider Qureshi stated that Pakistan will evolve its strategy over the arising situation of a possible attack of U.S. forces in Afghanistan in a high-level meeting(The News International 2001). On 15 September, a joint meeting of National Security Council (NSC) and the Cabinet was convened by the President Pervez Musharraf to discuss emerging situation in the wake of terrorist attacks(The News International 2001). After extensive discussions and thorough assessment of reports received from the DG ISI Lt. General Mahmood Ahmed and other sources, and emerging situation in regional and global politico-security environment, three alternatives were emerged for foreign policy decision(Sattar 2016). 1. Stay neutral in the war on terrorism. 2. Continue support to the Taliban and al-Qaeda. 3. Align with the U. S. against the war on terrorism. All the three alternatives and their cost and benefits were evaluated from different perspectives in consecutive meetings of policy makers and were found that the first two alternatives are not rational in the context of new developments. If Islamabad remains neutral in the war against terrorism or continue support to Taliban and al-Qaeda it would face American antagonism and wrath, and might be Pakistani territory subject to American attack. As already discussed in the previous sections that America had informed Pakistan for grave repercussions for its non-involvement in the war on terrorism. Sources also revealed the America accused that terrorists 178 한국과 국제사회 제2권 2호 (2018 가을) involved in attacks on the U.S. had allegedly received training in the tribal areas, which was solid excuse to attack on Pakistani territory(Yamin 2014). The rogue connections between the terrorists and Islamabad alarmed the ring bells of threat and it was not possible for Pakistan to restrain America to attack on its territory. However, the third policy option was most rational based on higher expected utilities, because Pakistan was in dire need of American military and economic assistance. And it was only possible after its involvement in the war against terrorism. Therefore, Pakistan chooses the third foreign policy alternative and became frontline ally against the war on terrorism. VI. Foreign Policy Choice According to the "Model of State Behavior in Crisis" choice ensues at the t4 stage, which is the last stage in the foreign policy crisis management. After consultation and assessment, decision makers usually select the choice which might diffuse the foreign policy crisis. So is true in the present case, when President Pervez Musharraf announced the new foreign policy decision in a telecast address to nation on 19th September 2001 by accepting all the U.S. demands. Pakistan offered territorial access to the U.S. forces for logistic supplies, four airbases namely Shamsi, Dalbandin, Pasni and Jacobabad for launching airstrikes in Afghanistan, immediately cutoff diplomatic relations with the Taliban, shared intelligence information and captured major al-Qaeda figures including Khalid Sheikh Muhammad, the mastermind of September 11, 2001 attacks. DYNAMICS OF PAKISTAN’S POST 9/11 CRISIS... ▫ Mehmood Hussain 179 VII. Conclusion The catastrophe of barbaric attacks on the U.S. had altered the security structure at international and regional level. However, particularly Pakistan faced worst ever crisis for its foreign policy decision after the U.S. declaration to fight against terrorism. Washington pressured Pakistan to join the global coalition and American officials threaten Pakistan to bomb back into the Stone Age. The threat to basic values/objectives in perceived high probability of military hostilities and simultaneous time pressure increased the psychological stress in decision makers. Subsequently, the decisional forum was set up under the command of President Pervez Musharraf, who established the special channels for information attainment and processing. After the assessment of policy options in hand, the restricted NSC reversed the foreign policy of the country and joined the U.S. hands to fight against terrorism. The transformation diffused the foreign policy crisis for Pakistan and paved the way for strategic partnership between Islamabad and Washington. 180 한국과 국제사회 제2권 2호 (2018 가을) 9-11 Commission. 2004. The 9/ 11 Commission Report.New York: United States of America: Government Printing Office. Abbas, H. 2015. P akistan's Drift into Extremism Allah, the Army, and America's War on Terror. New York: Routledge: Taylor and Francis Group. Brechear, M. 2004. (July 22). The P akistan Connection. Retrieved from The Guardian: https://www.theguardian.com/world/2004/ jul/22/usa.september 11. Brecher, M. 1993. Crises in World P olitics: Theory and Reality. London: Pergamon Press. Brecher, M. 1996. (April). Crisis Escalation: Model and Findings. International P olitical Science Review, 17(2), 215-230. Durrani, L. G. 2007. P eace and Conflict in P akistan: The Structure and Role of Intelligence Agencies. Islamabad: Pakistan Institute of Legislative Development and Transparency (PILDAT). Fair, C. C. 2013. U.S.-Pakistan Relations, Ten Years after 9/11. In J. K. Mallory, P akistan and Strategic Change: Adjusting Western Regional P olicy (pp. 221-234). London: Routledge. Folkman, R. S. 1984. Stress, Appraisal, and Coping. New York: Springer Publishing Company. Haq, I. U. 2016. (February 2). Foreign Secretary, Ministry of Foreign Affairs Pakistan. (M. Hussain, Interviewer) Islamabad, Capital Territory, Pakistan. Hassan, M. 2009. Causes of Military Intervention in Pakistan: A Revisionist Discourse. P akistan Vision, 12(2), 66-100. Hermann, M. G. 1989. (December). Who Makes Foreign Policy Decisions and How: An Empirical Inquiry. International Studies Quarterly, 33(4), 381-387. Hussain, Z. 2007. F rontline P akistan: The Struggle with Militant Islam. London: I. B Tauris. Hussain, Z. 2016. (February 8). Journalist & Book Author. (M. Hussain, Interviewer) Islamabad, Capital Territory, Pakistan. Jamshed Ali Baloch, D. K. 2014. Challenges to Foreign Policy of Pakistan in 21st Century. The Government-Annual Research J ournal of P olitical Science, 3(3), 29-35. DYNAMICS OF PAKISTAN’S POST 9/11 CRISIS... ▫ Mehmood Hussain 181 Jaspal, Z. N. 2017 (February 22). Professor Dr. (M. Hussain, Interviewer) Lahore, Punjab, Pakistan. Jonathan Wilkenfeld, M. B. 1988. Crises in the Twentieth Century, Handbook of F oreign P olicy Crises (Vol. 2). New York: Wiley. Jones, O. B. 2002. P akistan: Eye of the Storm. New Haven: Yale University Press. Khan, A. A. 2016 (January 26). Former Additional Secretary, Ministry of Foreign Affairs, Pakistan. (M. Hussain, Interviewer) Islamabad, Capital Territory, Pakistan. Kinne, B. J. 2005. (January 26). Decision Making in Autocratic Regimes: A Poliheuristic Perspective. International Studies P erspective, 6(1), 114-128. May, E. R. 1975.

**QUESTION NO 2:**

**CPEC: prospects and challenge?**

**ANSWER:**

China-Pakistan Economic Corridor; Prospects and Challenges for Balochistan, Pakistan. Muhammad Ahmed Farooqui1 and Syed Mobasher Aftab2 1 Office of Academics and Research, COMSATS University Islamabad, Lahore Campus, Defence Road, Off Raiwind Road, Lahore, Pakistan 2 Balochistan University of Information Technology, Engineering and Management Sciences, Quetta, Pakistan Email: farooqui@ciitlahore.edu.pk ABSTRACT Balochistan is rich in natural resource but due to the extremely harsh geographical environment and under-developed civil infrastructure (including roads, energy and water supplies), these natural resources could not have been tapped adequately in the past. With the launch of China-Pakistan Economic Corridor (C-PEC), there are ample opportunities for the exploitation of these resources that are expected to pave the way for unprecedented economic activities in Balochistan. From the perspective of natural resources these activities include, but not limited to, development and management of water resource, mining of coal and minerals, exploration of unexplored hydrocarbons, exploitation of dimension stones and construction material, and the establishment of related and subsidiary industries. All these activities require human resource development, better health, and educational facilities especially institution for technical and skill development of masses and most importantly the sustainable development of water resources and reservoirs for drinking, municipal and industrial purposes. In this paper key natural resources of Balochistan are identified in the context of their sustainable use under the CPEC induced development projects. These include water, minerals, hydrocarbons, shalegas, and coal. Suggestions are presented for a way forward to take maximum advantage of these resources for revenue generation and for the ultimate benefit to the local communities in Balochistan. A large number of mega projects including development of deep-sea Gwadar port, power generation plants, highway construction, and the establishment of special economic zones have been part of the C-PEC and are already being undertaken. However, it appears that small and medium-sized local industries and production units have not been given due attention. It is proposed here that the local people through local bodies may be identified and matched with relevant Chinese counterparts to develop joint ventures. Most of the areas of production and development identified in this paper are those whose products are already being exported to China through Karachi port. Hence the demand for these products in China is already established and need not any further survey. The products proposed in this paper are considered viable as all kinds of transport for C-PEC shall be passing through a large part of Balochistan where these resources occur naturally. Keywords. China-Pakistan Economic Corridor, natural resources, local communities, Balochistan. 2 1234567890‘’“” ICAET-2018 IOP Publishing IOP Conf. Series: Materials Science and Engineering 414 (2018) 012046 doi:10.1088/1757-899X/414/1/012046 1. Introduction In the seventy years history of Pakistan, the initiation and launching of the China-Pakistan Economic Corridor (C-PEC) is a significant economic activity that has been truly termed as s "game changer" [1]. Since the fall of Dhaka that led to the creation of Bangladesh in 1971, Pakistan has been continuously struggling to regain its position on the economic front. One after the other several internal and external conflicts and issues that surrounded Pakistan unwillingly, including, Soviet invasion in Afghanistan, IranIraq war, Kuwait war, Iraq war, continuous turbulence in Afghanistan for the last four decades, intermittent escalation of tension with India on Kashmir issue, nuclear tests by India and Pakistan, political instability in Pakistan due to military rule , and continuous, mostly uncontrolled, population growth, have been the major causes that did not allow the planners to frame and implement any long-term sustainable economic policy that would have helped Pakistan regain its economic status [2, 3, 4, 5, 6, 7]. The One Belt One Road (OBOR) Initiative and the launching of C-PEC in 2013, when the official MoU was signed between China and Pakistan, has emerged as a strong ray of hope for Pakistan to regain its lost economic strength. The C-PEC aimed to connect western regions of China and Pakistan through integrated investments in energy, trade, and communication. The C-PEC is going to enhance trade activities through Pakistan between China and the Middle East, Africa and Central Asia. The corridor will be a strategic game-changer in the region and would certainly bring long-term opportunities for Pakistan to become a richer and stronger economy. This paper provides an overview of the present and future opportunities for economic growth of Pakistan, especially Balochistan for which comprehensive long-term planning in urgently and essentially required. The paper also identifies the focus areas for effective economic development and the available natural resources in Balochistan for a profitable business. Such businesses are recommended to be initiated as joint ventures of local people of Balochistan and Chinese companies so that the real benefit of development percolated down to the deprived communities. 2. Focus Areas of Technology for Pakistan According to the latest biennial report of the US National Science Foundation and the National Science Board, China has gained the status of second-largest R&D spender in the world, accounting for 21% of the of approximately $2 trillion, which is next to the United States (26%) [8]. The rate of increase in R&D spending is the point of particular interest. R&D budget in China grew at the rate of 18 percent a year between 2000 and 2015, that is more than four times faster than the United States’ rate of four percent. It is almost definite that by the end of 2018, China will be the largest spender on R&D in the world. This should be of interest to not only Pakistani policymakers, but also to the policymakers of the neighboring countries of China. Pakistan is required to train as many people, especially youth, from its rapidly growing population as it can, using both indigenous and foreign institutions. In the context of the latest growing anti-immigration and anti-Muslims sentiments in the United States, China may be an attractive alternative for Pakistani youth. Increased funding for R&D by the Chinese government has resulted in the increase in the trained technical workforce that ultimately led to a dramatic increase in technical output [8]. The number of science and engineering graduates increased in China increased from 359,000 in 2000 to 1.65 million in 2014, almost a five-fold increase as shown in Table-1 [8]. The number of technology-based research papers being published by Chinese scholars is increasing at an unprecedented rate [9]. Chinese researchers and technologists are heavily involved in technology development and have made impressive contributions in artificial intelligence, telecommunications, robotics, electric cars and renewable energy [10]. These are the areas in which Pakistan also needs to develop expertise and human resource with the help of China. 3 1234567890‘’“” ICAET-2018 IOP Publishing IOP Conf. Series: Materials Science and Engineering 414 (2018) 012046 doi:10.1088/1757-899X/414/1/012046 It is a general perception in Pakistan that most of the C-PEC projects are in two sectors: energy and highways. But in reality, C-PEC projects are mostly about technology. New technologies are bound to be embedded in the C-PEC projects. With fast-paced technology developments, it is evident that in near future only technologically sound nations will be able to survive honorably. The future economic growth of a nation will depend on the confluent use and applications of big data, artificial intelligence, and connectivity; hence Pakistan is required to take initiatives in these focus areas. Therefore, it is imperative for Pakistan to initiate academic and research programs with the help of Chinese institutions to train as many Pakistani youths as possible in the five focus areas of; 1) artificial intelligence, 2) robotics, 3) renewable energy, 4) agriculture and 5) biotechnology [10]. Table 1. A comparison of the R&D spending and Technical Workforce in China and USA [8]. USA China R&D Expenditure in 2017 $520 Billion $420 Billion R&D Global share in 2017 26% 21% R&D Rate of Increase 4% per year 18% per year R&D Expected expenditure in 2019 $562 Billion $588 Billion Technical Workforce 2000 4,83,000 3,95,000 Technical Workforce 2014 7,42,000 1.65 Million Technical Workforce 2017 (Estimated) ≈800,000 ≈2.1 Million 3. Major Areas of Current Activities in Pakistan At present a major portion of the funds under C-PEC are allocated to the projects in the following seven areas; 1. Construction of highways and railway tracks 2. Development of Gwadar port 3. Energy generation projects 4. Establishment of industrial zones along the C-PEC route (Fig.1) 5. Laying down of pipelines for oil and gas transmission 6. Cyber networking and telecommunication 7. Water supply projects for industrial and municipal use (mostly in Balochistan) All projects require technology development and human resource development. Therefore, it is imperative for Pakistan to create and strengthen proper infrastructure and facilities at R&D organizations and universities in Pakistan so that the future demand of technologies technologists, scientists and engineers are met. The list of C-PEC projects and their current statuses are tabulated in tables 2 to 6, [11]. The energy and power generation sector comprised of 18 projects, the overall progress varies from 15 to 75% while a few are completed, table 2. The transportation and communication infrastructure including eight projects, the overall progress varies between 15-70%, table 3. Six projects are related to industrial 4 1234567890‘’“” ICAET-2018 IOP Publishing IOP Conf. Series: Materials Science and Engineering 414 (2018) 012046 doi:10.1088/1757-899X/414/1/012046 cooperation and ten projects to Gwadar Port with nominal progress on all of them, table 4 and 5. There are ten Special Economic Zones have been planned to establish in different parts of the country, the feasibility studies and technical evaluation is under progress on all the projects, table 6, [11]. Considering the present rate of development work under C-PEC, it has been estimated that the GDP of Pakistan is expected to experience an annual increase of about 2.5 percent by the year 2030 whereas ca.700,000 jobs are expected to be created in next 10 years. Most of the jobs shall be in the Energy, Communication (Highways and Railways) and Port Development sectors [12, 13]. Figure 1. Map showing major projects of China-Pakistan Economic Corridor [13, 14, 15, 16]. 4. C-PEC and the Local Communities in Balochistan The rural communities in Balochistan take pride in their traditions, culture and the natural environment. They are well aware of the natural resources, agriculture, forests, rangelands, watersheds, biodiversity and mineral deposits of the province, however, the harsh living conditions like aridity, depleting groundwater resources, periodic droughts, overgrazed and degraded rangelands, low productive livestock, and rugged terrain are the major hurdles in their advancement. The government departments, both provincial and 5 1234567890‘’“” ICAET-2018 IOP Publishing IOP Conf. Series: Materials Science and Engineering 414 (2018) 012046 doi:10.1088/1757-899X/414/1/012046 federal, have been largely unable to mitigate desertification, deforestation, de-vegetation of rangelands and recharging of the groundwater resources. The province needs an integrated developmental approach in which all stakeholders including government departments, politicians, civil society leaders, community elders and local NGOs are to be brought on one page to take maximum advantage of C-PEC for community development. The western route of the C-PEC has excellent potential for the developmental projects. For a sustainable developmentharmonized with local communities, the developmental activities should involve local communities through a consultative process. It’s imperative to bring the rural communities into the mainstream by transforming and empowering them in decision making. The empowerment of communities in developmental activities may initiate from project identification to implementation and from operation and maintenance to project’s ownership, [17]. The rural communities are dependent on their surrounding environment and natural resources. The small-scale farming, orchards, livestock grazing, limited mining and fishing in coastal areas may improve the community’s economic conditions. In some cases, these said economic activities and occupations have already been molded by the natural climate and availability of surface and groundwater resources [18]. The sustainable management, conservation, and protection of water resources is an important factor for the physical, social and economic endurance of rural communities [18]. The impact of climate-induced changes in Balochistan are obvious but are not scientifically understood. The relevant government departments, R&D organizations, and universities may get benefit from the Chinese experience through C-PEC to address and resolve these issues. One of the major challenges is the protection and conservation of groundwater resources [19]. 5. Focus Areas for Balochistan Despite being resource-rich, contributing more than 40 percent to the country’s energy requirement in the form of electricity, natural gas, and coal, Balochistan is still the most underdeveloped province of Pakistan. There are multiple reasons and justifications for the slow development of Balochistan and each one has counter-arguments [2, 5, 20]. But the bottom line fact remains unchanged that people of Balochistan are lagging behind in the race towards better socioeconomic conditions and lifestyle. After a long wait of more than seventy years, the C-PEC is the first ray of hope for the people of Balochistan to prosper. In order to take advantage of this unique opportunity, it is necessary to move forward without indulging into the unending discussions on the background and history of the political, geographical, tribal and social conflicts that kept Balochistan away from the mainstream of development path in the past. With this context, five major focus areas of natural resources are proposed here for initiating new projects table-7. The focus areas projects are comprised of minerals, coal deposits, and construction materials, which are widely exposed along the new trade corridor. The proved oil and gas reserves are present in many parts of the province, even oil and gas seeps at the surface are known from a long time. The renewable energy resources including solar, wind and geothermal potential are extensively present. New projects are required to initiate the development of these natural resources. The management of the water resources is the sweltering issue of the province. The climate change has deteriorated the surface and groundwater balance. The different categories of droughts have become a permanent feature in one or the other part of the province. The groundwater table is depleting at an alarming rate in most of the river basins. The development of new water resources and management techniques are needed to apply for a sustainable supply of water. 6 1234567890‘’“” ICAET-2018 IOP Publishing IOP Conf. Series: Materials Science and Engineering 414 (2018) 012046 doi:10.1088/1757-899X/414/1/012046 Table 2. Energy and Power Generation Projects [11] No Project Name Status Progress 1 Two 660MW Coal-Fired Power Plants at Port Qasim Under construction 100% 2 Two 660MW Coal-Fired Power Plants at Sahiwal Two units inaugurated 100% 3 Four 330MW Engro Thar Coal-fired Power Plant Under construction 60% 4 50MW (Dawood) Wind Farm, Gharo Ready for operation 100% 5 900MW Solar Power Park Bahawalpur Energization achieved 100% 6 100MW Jhimpir Wind Energy Farm Jhimpir Under construction 100% 7 50MW Sachal Wind Energy Farm, Sachal Under construction 100% 8 720MW Karot Hydro-Power Project, Financial close achieved 70% 9 873MW Suki Kinari Hydropower Project Under construction 65% 10 Two 60MW Coal-Fired Power Plant Rahimyar Khan Feasibility stage 15% 11 Two 660MW Coal-Fired Power Plant Hub (Habco) Under construction 50% 12 300 MW Power Plant Gwadar Feasibility stage 60% 13 Faisalabad-Matiari-Lahore Transmission Line Negotiation in process 15% 14 Two 660MW Power Plants Gadani Lasbela, Feasibility stage 15% 15 1100MW Hydro-Power Station Kohala Negotiation in process 15% 16 300MW Power Plant at Salt Range Mine Feasibility stage 15% 17 Two 660MW Coal-Fired Power Plants, Thar Coal Mine Feasibility stage 15% 18 Two 660MW Coal-Fired Power Plants Muzaffargarh Feasibility stage 15% Table 3. Transportation and Communication Infrastructure - Roads and Highways [11]. No Project Name Status (April 2018) Progress 1 120 km KKH Phase-II, Havelian- Thakot: Under construction 70% 2 392 km Karachi-Lahore Motorway (S-M-S) Under construction 70% 3 Establishment of Havelian Dry port Feasibility completed 100% 4 Upgradation of Multan-Lahore Section, 339 km; Hyderabad-Multan Section, 749 km; and Kemari-Hyderabad Section, 182 km. Agreement under discussion 40% 5 Construction of New Havelian Dry Port Feasibility completed. 25% 6 110 km Khuzdar-Basima Highway (N-30) Feasibility completed. 25% 7 280 km KKH Phase III (Raikot-Thakot Section) Feasibility completed. Procedural formalities to be completed soon 25% 8 533 km D.I.Khan-Quetta Highway (N-50) Feasibility stage 15% 7 1234567890‘’“” ICAET-2018 IOP Publishing IOP Conf. Series: Materials Science and Engineering 414 (2018) 012046 doi:10.1088/1757-899X/414/1/012046 Table 4. Industrial Cooperation Projects [11]. No Project Name Status Progress 1 700 km Gwadar-Nawabshah LNG Terminal and Pipeline Ready to be inaugurated 40% 2 Haier & Ruba Economic Zone Phase-II Feasibility stage 15% 3 Laying of Optical Fiber Cable Rawalpindi to Khunjrab Under construction, Expected Completion by Dec 2018 70% 4 DTMB Demonstration Project MOU Signed 5% 5 Lahore Orange Line Metro Train Under construction 70% 6 Promotion and commercialization of TD-LTE in Pakistan Feasibility stage 15% Table 5. Gwadar Port and Peripheral Projects [11]. No Project Name Status Progress 1 19 km Gwadar Eastbay Expressway Framework Agreement Signed 60% 2 New International Airport Gwadar Framework Agreement Signed 40% 3 Free Economic Zone Gwadar 1st phase completed 60% 4 Smart Port City Master Plan Gwadar Contract negotiations underway 20% 5 Expansion of Multi-purpose Terminal Feasibility stage 15% 6 Fresh Water Supply, Wastewater Treatment Plants for Gwadar City Feasibility stage 15% 8 China-Pakistan Faqeer Primary School Gwadar Completed. 100% 9 Pak-China Friendship Hospital Gwadar Feasibility study underway 10% 10 Pak-China Friendship Technical and Vocational College Gwadar Feasibility study underway 10% 8 1234567890‘’“” ICAET-2018 IOP Publishing IOP Conf. Series: Materials Science and Engineering 414 (2018) 012046 doi:10.1088/1757-899X/414/1/012046 Table 6. Special Economic Zones [11]. No Name Type of Industry Progress 1 Rashkai Economic Zone, M-1, Nowshera, KPK Fruit/Food/Packaging/Textile Stitching/Knitting Feasibility study is technically evaluated by China 2 Special Economic Zone Dhabeji Sindh To be determined during feasibility stage Feasibility study is technically evaluated by China 3 Bostan Industrial Zone Balochistan Fruit Processing, Agriculture machinery, Pharmaceutical, Motor Bikes Assembly, Chromite /Ceramic, Ice and Cold storage, Electric Appliance Feasibility study is technically evaluated by China 4 Allama Iqbal Industrial City (M3), Faisalabad, Punjab Textile, Steel, Pharmaceuticals, Engineering, Chemicals / Plastics, Food Processing, Agriculture Implements Feasibility study is technically evaluated by China 5 ICT Model Industrial Zone, Islamabad Steel, Food Processing, Pharmaceutical & Chemicals, Printing and Packaging, Light Engineering etc. Feasibility study is technically evaluated by China 7 Industrial Park at Port Qasim, Sindh Steel, Auto & allied industries, Pharmaceutical, Chemical, Printing and Packaging, Garments. Feasibility study is technically evaluated by China 8 Special Economic Zone at Mirpur, AJK Mix industry Feasibility study is technically evaluated by China 9 Mohmand Marble City FATA-KPK Marble / Granite, Mineral Processing Industry Feasibility study is technically evaluated by China 10 Moqpondass Special Economic Zone, Gilgit-Baltistan Marble / Granite, precious stones, Fruit Processing, Steel Industry, Mineral Processing and Leather Industry Feasibility study is technically evaluated by China 9 1234567890‘’“” ICAET-2018 IOP Publishing IOP Conf. Series: Materials Science and Engineering 414 (2018) 012046 doi:10.1088/1757-899X/414/1/012046 6. Human Resource Development Education and training of indigenous human resource are integral parts of all developmental activities. Human resource in all academic disciplines including engineering, medical, computer, social, business, and natural sciences will be required for C-PEC projects in Balochistan. Higher Education Institutions (HEIs) in Balochistan are to be provided special funds to develop state of the art laboratories either independently or in collaboration with Chinese Universities. In Pakistan, the skilled labors constitute about 6% of the entire labor-force [21]. The technical and vocational trade institutions are far less to meet the present and future demands in a broader context of CPEC. In Balochistan, the situation of primary, secondary and the technical and vocational training colleges and the institution is very grim. The number of technical institutions, students enrollment capacity and the number of pass-outs figures are very low as compared to other provinces of Pakistan. Establishment of technical and vocational institutions are required on an emergency basis to fulfill the present and future demands in diverse technical and professional trades. Chinese language institutions are also required to be established for the skilled workforce to learn the Chinese language for a better work-place understanding with their Chinese counterparts. 7. Opportunities for Joint Ventures in Balochistan A large number of high-cost projects like Industrial Zones, Power Generation Plants, Road & Highways Construction, Special Economic Zones etc. have been part of the C-PEC and are already in progress. However, small production units and business enterprises require more attention owing to its potential to contribute effectively. It can be anticipated that with the opening of commercial transport on C-PEC, a large number of heavy-duty trucks and trawlers will be carrying goods from China to Gwadar port. After getting unloaded these trucks and trawlers will have no or little goods available to take back to China. The traveling of unloaded large vehicles shall be a huge waste of time, fuel, and transport machinery. In order to save these losses, local industrial and production units may be developed by providing facilitation to local people and their relevant Chinese counterparts. It is proposed here that the local people may be identified and matched with relevant Chinese counterparts to develop joint ventures. Most of the areas of production and development identified in this paper are those whose products are already being exported to China through Karachi Port. Hence the demand for these products in China is already established and need not any further survey in China. Very little facilitation has been provided to match the local business community with their prospective Chinese counterparts to initiate joint ventures in Balochistan. One such meeting was organized (22nd August 2016) by Ministry of Industries and Production (Islamabad) in which business community belonging to Quetta Chamber of Commerce and Industry (QCCI) were invited. The ultimate result of this meeting is yet to come out, however, it is opinionated here that the business community of QCCI has very little to contribute at least at the current stage. This is because Quetta is part of the Western Route of the C-PEC, whereas, according to latest news appearing in press and media, most of the development work on C-PEC is currently concentrated on the Eastern Route of C-PEC. Geographically, the Balochistan part of the Eastern Route starts from Shahdad Kot in Sindh, crosses Kirther Mountains towards the west and passes through towns of Karkh, Khuzdar, Basima, Nag, Panjgoor, Turbat and ends at Gwadar. An alternate route is from Khuzdar to Wadh, Bela, Winder, and then connects to Coastal Highway leading to Ormara, Pasni and ultimately Gwadar, figure 1. In either case, the town of Khuzdar is common on both routes. Therefore, the products proposed in this paper are considered viable as all kinds of transport for C-PEC shall be passing through Khuzdar. Additionally, the identified products are being produced either along the C-PEC route in Balochistan or in its immediate vicinity. 10 1234567890‘’“” ICAET-2018 IOP Publishing IOP Conf. Series: Materials Science and Engineering 414 (2018) 012046 doi:10.1088/1757-899X/414/1/012046 Table 7. Major natural resources for development projects in Balochistan No Natural Resource Types of deposits Location in Balochistan 1 Minerals and Coal deposits Iron Copper and Gold Chaghi Mountains. Barite, Lead, and Zinc Khuzdar and Bela districts. Chromium and Iron Muslim Bagh and Zhob districts, and Raskoh. Iron, copper, chromium gold, Rare Elements Raskoh Mountains. Coal deposits Quetta, Bolan, Kohlu, Barkhan (Chamalang). 2 Construction Material Aggregates All districts of Balochistan. Limestone and sandstone Sulaiman and Kirther Mountains. Dimension stones: Granite, Limestone, Onyx Marble and sandstone Sulaiman and, Kirther Mountains, Chaghi Mountains and Raskoh Mountains. 3 Oil and Gas Reserves Petroleum Kharan Basin and Offshore Makran. Gas Offshore Makran. Shale Gas Coastal Makran Ranges and Offshore Makran. 4 Energy Resources Solar Energy All Balochistan. Geothermal Energy Murri-Bugt Hills, Chaghi Hills, Bolan district and Makran Coast (mud volcanoes). Bioenergy All Balochistan. Ocean Energy Coastal Makran. Hydrogen Energy All Balochistan. 5 Water Resources Surface Water (perennial) Nag, Hoshab, Panjgoor (Rakhshan River), Bolan, Harnai, Zarghoon, and Zhob. Rain Water (nonperennial) All Balochistan; Natural dam sites are available where rainwater can be stored both for groundwater recharge and water supply. Groundwater Fractured hard rocks, conglomerates and alluvium available all along the C-PEC route in Balochistan; Specific aquifers are a) rocks of Binga and Diz units of Khojak Formation in Central Balochistan (Panjgur and Turbat districts) and b) rocks of Talar and Hinglaj units of Makran Group in Makran Coastal Range between Ormara and Jiwani. Seawater Along Makran Coast; desalination of sea water 7.1 Dimension Stones Huge deposits of dimension stones of international quality are available in Balochistan. These stones include limestone, granite, marble, sandstone, and onyx to name a few. From geological prospective Kirther and the Sulaiman Mountains in Balochistan are the natural geological environments where multiple types of high-quality natural stones are available. Such rocks are rarely available in the northern parts of Pakistan and even in Western China (the Tibbet Plateau) because of the intense geological activities (tectonically compressed) due to which most of the rocks are highly crushed or broken into 11 1234567890‘’“” ICAET-2018 IOP Publishing IOP Conf. Series: Materials Science and Engineering 414 (2018) 012046 doi:10.1088/1757-899X/414/1/012046 pieces. Large-sized un-fractured dimension stones of same color, texture, and strength which are commercially required, are generally not available in the areas where rocks have gone under high compression. There are some local areas from where these dimension stones are already being mined/quarried for export to China through Karachi Seaport. Some of the locations in Balochistan, mostly along the C-PEC route, from where these stones are being produced, are as under: 1. Saruna, District Khuzdar 2. Karkh, District Khuzdar 3. Nal, District Khuzdar 4. Basima, District Qalat. 5. Duraji, District Lasbela 6. Loi, District Lasbela 7. Gajri, District Lasbela 8. Shah-e-Noorani, District Lasbela 9. Yak Mach, District Chaghi 10. Dalbandin, District Chaghi 11. Nokundi, District Chaghi 12. Different localities in District Loralai, Ziarat, Quetta and Zhob In these localities, the mining facilities and infrastructure are very primitive with old machinery. Their production can easily be increased by introducing more mechanized mining. Chinese mining companies can play a very productive role by developing joint ventures with local miners to boost the production. 7.2 Minerals and Mining Balochistan is a host of large deposits of metallic and nonmetallic minerals. These include ores of Gold, Copper, Iron, Chromium, Barium, Magnesium. Aluminum, Tungsten, Lead, Zinc, Antimony and many more. The minerals named Chromite, Pyrite, Barite, Magnesite, Galena, and Sphalerite, are already being mined in various localities of Khuzdar, Bela, Chaghi and Muslim Bagh areas of Balochistan. With the exceptions of few, all these ores are being exported to China through Karachi port for further refining and processing. The transport of these ores may be diverted to C-PEC and the production may be enhanced with the help of Chinese mining companies. Some of the major mineral deposits and their locations are listed below for ready reference; 1. Copper-molybdenum deposits of Dasht-e-kain, Chaghi. 2. Copper deposits of other areas of Chaghi District. 3. Iron Ore reserves of Dalbandin and Nokundi District Chaghi. 4. Sulphur reserves of Koh-i-Sultan Nokundi. 5. Chromite deposits of Wad, District Khuzdar. 6. Chromite deposits of Kharan. 7. Laterite deposits of Ziarat District. 8. Antimony deposits of Arambi Village District Qila Abdullah. 9. Chromite deposits of Muslim Bagh District Qilla Saifullah. 10. Magnesite deposits of Muslim Bagh. 11. Chromite deposits of Zhob District. 12. Lead-Zinc Deposits of Lasbela District. 13. Quartzite deposit of Gajri village Lasbela 12 1234567890‘’“” ICAET-2018 IOP Publishing IOP Conf. Series: Materials Science and Engineering 414 (2018) 012046 doi:10.1088/1757-899X/414/1/012046 7.3 Fisheries/Fish Farming Makran Coast and its seawater are regarded as one of the cleanest natural environment having no impact of industrial pollution. Hence it is the habitat of freshest and cleanest marine life. Fish Farming has huge potential all along Makran Coast especially in the towns of Gwadar, Pasni, and Ormara. Local people along the coast are already engaged in traditional fishing activities with minimal resources and training. Fish/Sea Food processing and preservation facilities may be established with the help of local people and their Chinese counterparts. These fish and other raw seafood may then be exported to China via C-PEC. 7.4 Agriculture Climatically, Balochistan comes under desert to semi-desert environment. Water is scarce hence largescale agriculture products may not be expected. However, different types of high quality "dates", the product of desert environment, are enormously available in a vast area between Khuzdar and Gwadar. These dates can be easily processed and preserved for export to China or Central Asian countries (through C-PEC) where dates are not naturally grown. 7.5 Livestock Balochistan has huge potential for the growth of livestock, especially sheep, lamb, and goat. Local people are already involved in traditional livestock business but do not have means for mechanized livestock farming. Small and medium-sized processing plants may be installed along C-PEC or near Khuzdar for the slaughtered cattle and their processing for preservation for ultimate export to China through C-PEC route. 7.6 Cement Manufacturing Plant All the raw material for a cement manufacturing plant are extensively available all the way from Mughal Kot (Zhob) in the north to Surab (near Khuzdar) in the south. The four basic ingredients of cement (Calcium, Silicon, Aluminum, and Iron) are extracted from limestone and shales which are abundantly available in the rocks exposed along the road between Quetta and Zhob. The most viable location for the Cement Plant is the Bostan Industrial Zone (near Quetta) that falls almost halfway on western route of CPEC between Zhob and Gwadar providing equal access to both northern and southern localities in Balochistan. 7.7 Ferro-Chrome Beneficiation Chromium is an essential ingredient for the production of steel. Muslim Bagh has the second largest chromite (ore of chromium) deposit of the World from where mining is being done for the last 100 years. Currently, the raw chromite ore from Muslim Bagh is being transported all the way to Karachi for its onward export to China at a very low cost. This raw Chromite ore is processed at China to convert it into Ferro-Chrome which is then imported back in Pakistan, at a very high cost, for use in the iron/steel industry (mostly in Pakistan Steel Mills). A Ferro-Chrome plant will not only reduce the transport cost, it will substantially save foreign exchange also. All industrial units in C-PEC Projects will certainly need the iron and steel in one form or other that can be met from the products of Ferro-chrome plant. The most viable location for this industry is near Muslim Bagh. 8. Conclusions China Pakistan Economic Corridor (C-PEC) has opened up vast opportunities for the socio-economic development of Pakistan. Pakistan needs to focus on key areas of artificial intelligence, robotics, renewable energy, agriculture, and biotechnology to develop its human resource. Trained technical human resource in these areas will be essential for a sustainable development with Chinese investment. Similarly, Balochistan being a resource-rich but highly deprived and underdeveloped province, also needs to focus on seven key areas to take maximum benefits from C-PEC induced trade and transport projects. These are 13 1234567890‘’“” ICAET-2018 IOP Publishing IOP Conf. Series: Materials Science and Engineering 414 (2018) 012046 doi:10.1088/1757-899X/414/1/012046 minerals and coal exploration, construction materials, Oil and Gas exploration, Energy generation including renewable energy, Water, including surface water, groundwater, and seawater, and Human Resource Development. Additionally, Balochistan has the potential offer joint industrial ventures with Chinese counterparts in the production and marketing of dimension stones, mining of mineral deposits, fish farming, agriculture products that are not available in China, farming of Livestock, cement manufacturing, and Ferro-Chrome manufacturing industry.