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## **CPEC and Its Impact on Pakistani Agriculture**

Pakistan is blessed with the superb strategic position in world, so every country wants to established fast friendly relationships with it. The best example is China-Pakistan economic corridor (CPEC). CPEC is a network of railways (1836 km) and highways (966 km) of approximately 30,000 km in length starting from Xinjiang to Pakistan with the worth of multi-billion (\$46 billion) from 2013 to 2030 with the short, mid and long terms goals. Its objectives are not only to modernize the Pakistan in science and technology but also in agriculture. China wants to increase its export, reduce the cost on exported commodity and gets access to middle east by it. So, it will minimize dependence on western countries.

Pakistan falls at sixth position regarding populous country. According to latest data, its population is approximately 22 billion. As population is increasing day by day thus the requirements of food, shelter, and fiber are also increasing. The project, CPEC, will not only help to increase the production by co-operated exports, as Russia, Saudi Arab and Iraq are also interested to invest in it, but also offering practical instructors to facilitate farmers by innovations. By the series of experiments performed by china-Pakistan in agriculture will develop productive environment in country.

Pakistan is agricultural country as approximately 70% population, directly or indirectly, related to agriculture sector. According to statics inked by world bank collection of development, in 2016, 60.8% population is inhabitant of villages. Rural areas are considered as spine of country because of agriculture commodities. Agriculture products includes cotton, Wheat, rice, sugarcane, maize, leguminous crops, fuel crops, vegetables, fruits and livestock. Unfortunately, rural areas still facing the energy shortfall because of less generation of electricity in Pakistan.

Agriculture is now modernizing by replacing the traditional methods, of cultivating, management and harvesting, and post harvesting methods, with innovations e.g. using of machines instead of animal power. A few examples of innovation are combined harvester, drone technology for pesticides for large number of fields, milking machines for cow and buffaloes, milk pasteurized machines, semen preservation machine, and hatcheries etc. As Pakistan is included among the list of electrically unstable countries, so we need to produce electricity generating project. On contrary, china is independent in this respect. Thus, CPEC is best way to fulfill requirement of energy in different operations of agriculture.

Pakistan, being developing country, has competence of spawning the electricity of 24830 mega-watts only which is not enough to fulfill the requirements of population. CPEC will generate the electricity of 10400 MW with the expenditure of \$33 billion for the stability of Pakistan. Pakistan has intention of generating 25% electricity from inexhaustible sources like water, air, solar, biomass till 2030 under the title of long-term objectives of CPEC.

Energy generation is really an uphill task but can be triumphed by the sincerity of china and Pakistan in CPEC. China has completed partially the task of Quaid-e-Azam solar park, covered the area of approximately 2630 hectares, producing 100 MW electrically today but work for 900 MW are under supervision. According to CPEC, complete project will enlarge the electricity production to 1000 MW. The other projects include wind power plants, hydro-power plants as well as coal fired power plants.

Pakistan is big exporter of vegetables and fruits. It ships potatoes, garlic, mushroom, onion and kinno, apple, mangoes, dates, dry fruits etc. Pakistan has central position in the mangoes and citrus fruits exportation. Pakistan has exported 125000 tons of kinno to this day at the rate of \$500 per ton. Pakistan falls at 12<sup>th</sup> position among the largest kinno producing countries. So, large number of agriculture commodities are produced but their shipping is not less than headache for producers due to many problems like hesitation, less shelf life and contamination by mechanical injury. Due the long distance and less shelf-

life we must meet the problems that cause the reduction in the price of commodity. This not only disgrace the farmers but also has negative impacts on trade. CPEC will reduce this problem by providing way to international market where will be more interaction among buyers and sellers.

Pakistan can also export wheat and rice (basmati and non-basmati) to china, due high demand of food being the world largest country regarding population, through CPEC. The rice of Pakistan especially basmati is on the top position due to its aroma and taste. In the light of statement said by professor Javid naqwi china is the main market for the exporting of non-basmati rice from Pakistan. In this way, CPEC will ease this export.

Pakistan is the not only included among the largest producer but also dominant exporter of cotton in Asia with the contribution of 3.2% in GDP (gross domestic product). Pakistan use cotton as raw cotton and yarns (textile, filament, ply), oil crop, cloth as cotton-satin bedsheets, silken sofas sets, silk and nylon curtains, water-proof variety of cloth is also available and ready mad garments like cotton bags, jeans, shirt, breeches, woolen uppers etc. sadly, we are facing the problems in this sector like attack of sucking and scraping pests causing disease of cotton like curl leaf disease.

CPEC also encompass China-Pakistan joint biotechnological laboratory of cotton to develop the efficient input utilizing, insect-pest, weedicide, herbicide, a-biotic stress(high or low temperature, relative humidity, relative rainfall, wind, soil type) resistant varieties of cotton by using biotechnological tools under the supervision of expert biotechnologist, pathologist, geneticist team so that both countries become self-dependent. In addition to this project will minimize the cost of export of cotton by this inter-connected network of highways and railways passing from sea as well as dry ports.

Agriculture livestock includes milk and meat animals (sheep, goat, cattle, buffalo, camel) and draft animals (donkey, horses, mule). Pakistan lies on third number in the series of milk exporting countries. The hides of livestock are used to make shoes and playing goods like football etc. Skin are used to make gloves, leather jackets, tents and bookbinding. The export of these product to Hong Kong, China was 55641.13 in 2016. Pakistan export donkeys from KPK to china. So, CPEC will help to strong this export system. Agriculture commodity can easily pass in and out by it.

Fertilizers, organic and inorganic, play an important role in plant growth. Organic fertilizers are bio-derivatives includes animal dung, compost, poultry waste, sewerage slugs, peeling of fruits and vegetables, green manures, wood dust, rice straw, wheat straw and fish excreta. On the other hand, inorganic fertilizers are laboratory synthesized chemicals include urea, single super phosphate, nitrophas, potassium murate etc. Fertilizer contains 17 essential nutrients like nitrogen, potassium, phosphorus, as well as traces elements like zinc, molybdenum, calcium, Sulphur etc. plants consummate them as they are component of building blocks molecules. Plants assimilate them to initiate flowering, increase nutrient uptake efficiency, and thus to increase production.

CPEC, encompass the different fertilizer manufacturing projects according to which 8 lakh tons fertilizers can be framed. This project also has the memorandum of mounting yards or factories which has capacity of producing 1 lakh tons bio-organic stimulant or enrichers. Pakistani soil is mineral in nature because it has less organic matter due to high temperature and less humidity. But the china has emerged on world globe as the largest producer and exporter of fertilizers and pesticides. In this way, CPEC, unfastened a gateway towards precise and bourgeoning agriculture by providing plants productivity restorative.

CPEC will also provide the farm machinery to Pakistan so that small farmer can hire the machinery on lease payment. This is really a positive point for small holding and poor farmers. Installation of tractors forming units in Pakistan is the good example of the remembrance of memorandum of co-operation in agriculture

sector. Introduction of alien or exotic species suitable for health and environment can also be possible by CPEC.

Pakistani government is trying to aware farmer community with respect to impacts of CPEC on agriculture sector. Different seminars are held in expo centers regarding this. In these seminars Chinese agriculture culture were introduced and the success rate of china by adopting innovation in agriculture sector was also the impressing points for adopters. The relation between Pakistan and china is 65 years old and continue to date. CPEC is example of warmth feelings of china-Pakistan in every sector of life. CPEC is way to materialize the dream of being independent in agriculture and strong exportation of agriculture commodities.

May! This relationship flairs the sky with the bless wishes.