The Politics of Bulldozers in Balochistan

By topography Balochistan is plateau region where many valleys are situated throughout the province. Except for some of its plain areas rest of country is mountainous region with very less vegetation. The land topography is highly uneven and in highlands gravel contents are high in the soil. Rainfall is low and erratic in the province, i.e. 100mm in western localities to 400 mm rains in north eastern areas. Agriculture is practiced through different sources of irrigation ranging from canal irrigated areas in Naseeabad, natural flow and Karezes in highlands and south and tube-well agriculture in mid and northern regions.
Traditional agriculture has been practiced through two methods, i.e. Sailaba and khushkaaba. Saialba is a method where runoff water flows in hill torrent or stream and is diverted through controlling structure, made across the stream, and collected in bunds and in Khuskaaba the runoff is much localized. Filed used for cultivation through sailaba and khushkaba irrigation are locally called bunds having earthen embankments usually on three sides and surface in many cases is sloppy and uneven.

After the creation of Pakistan government has created a department with the name of Mechanized Cultivation. This department was given 7 old bulldozers which were purchased from military through auction at that time. These bulldozers were used to develop agricultural lands and associated work. The idea behind was to conserve the moisture in bunds by raising earthen embankments/walls as it is practiced by local farmers. At that time another rational behind was to maximize the area under cultivation as there were only 228400 ha of land under cultivation in 1947-48. These bunds were need of the day at that time as most of runoff would flow in any case and causing floods and heavy soil erosion. Since in highlands land is sloppy and having gravel contents, rainfall average is low and erratic therefore, it was thought that mechanical methods could help to conserve and restore the moisture from rainfall, runoff and snow. For this purpose bulldozers were found very useful. It is important to know that at that time there were not many wheal tractors in the province. Agriculturists also gave the idea to use bulldozer for directly plowing the lands having high percentages of gravel usually found in foothills zone. In 1950s and 60s land through this method was brought under cultivation for wheat and barley cultivation by conserving the moisture of rain and snow fall. The present wheat fields in Muslimbagh, Pishin, Loralai and some other parts of province are typical examples of those days bulldozer work. These bulldozers worked through a subsidy program for farmers.

S.No.	Year	Cultivated area 2+3	Current fallow	Net Sown	Sown More than Once	Total Cropped Area 3+4
		1	2	3	4	5
1	1947-48	0.27	0.06	0.21	0.02	0.23
2	1957-58	0.59	0.30	0.29	0.02	0.31
3	1967-68	2.01	1.29	0.72	0.03	0.75
4	1977-78	1.38	0.93	0.45	0.01	0.46
5	1987-88	1.50	1.00	0.5		0.50
6	1994-95	1.68	0.77	0.91		0.91

At the same time department also started installing diesel driven pumps by digging open surface wells.
In 1966 Russian/Polish bulldozers were brought into fleet of machines in the department. After that FIAT dozers were included. In late seventies Komatsu bulldozers were purchased from Japan. From 1983 Caterpillar dozers were included in the pool. Most of these machines were purchased and obtained through foreign aid/loan program. The type of machine imported is selected by the grant/loan country and that particular machine is thus imported regardless of need and efficiency.

Political Aspects:
This was the period when government decided to green the province through institutional support of agricultural sector. To green the province by any means was part of political policy where province need to be independent from relying on opponent province for wheat supply. Department had 231 bulldozer during 1974-75 as compared to 696 wheal tractors in the province, mostly privately owned (72%). Land development work was on swing for several years throughout the province as a part of greening policy. This is the period when employment of agricultural engineering department had a high status. Soon machinery was out of order mainly due to heavy use and partially due to mismanagement. Due to these factors during the year 1979-80 the functional bulldozer numbers decreased to 179.
Thanks to geopolitical situation at that time in this region, soon country became high important to western world. Aid started coming into country by different donors. In this context a fleet of dozers was imported through aid program and number increased to 321 in total. At present there are 313 Bulldozers of different types with agricultural engineering department in the province and out of these machines 95 bulldozers (30%) are out of order, i.e. in 2002.

Subsidy and rates:
Government enjoyed monopoly over heavy earth moving machinery in the province. The numbers of private tractors were very less in the province. Farmers always heavily depended upon public sector for this purpose. Moreover, the type of work was better performed by these heavy duty bulldozers as compared to small wheal tractors owned by private sector. To become self sufficient in food government has placed subsidy over bulldozers since beginning. From 197?? Up to 198??? The rate per hours was Rs. 150/ and then was increased to Rs. 250/ hour for agricultural purposes which still remains the same. Although real expenditure per hour is much more than this figure and rest amount is borne by federal government as a subsidy.

From 1985 all members parliament (provincial, national, and senate) were granted bulldozer hours from government as a part of participatory development through elected individuals. In practice these hours are further distributed among their political allies, favorites and voters. Member parliament and senate offer bulldozer hours freely as a development scheme to people of their constituency. According to law these hours should be only given to farmers but in practice are given to any body that can influence the member in one way or the other. In some cases it has been reported that these hours are even sold further by allotter to a needy person. Bulldozer hour's allotment and quota to member parliament has brought different experiences, both positive and negative. On the other hand one is forced to admit that bulldozers have played extremely important role in land development process of Balochistan where soil geology and topography allow only use of such heavy machinery for optimum improvement. From 1985 onwards provincial politics was influenced in these manners. During 1990s a time came when bulldozers

quota/allotment was more than the working capacity of bulldozer fleet in the province. Political parties forming the government would choice for this ministry for the sake of bulldozer hour's allotment. To get this ministry even political game is maneuver with allies in formation process of provincial government and politics. Use and obtaining of bulldozers hours by farmers through this process is not only useful for land development but also a concern of tribal and political prestige in the socio-cultural and political environment in the province. However, big tracts of lands can be developed easily by using heavy machines in a much faster way and this particular action helps to cope the seasonal constraints sometimes occurred due to natural climates, i.e. late rains would never allow cultivation of crops by using human and animal power alone thus machines can easily cover the time constraints. Since many areas have not been measured under the settlements program thus use of bulldozer has also helped in occupying the lands by influential people. In land husbandry farmers prefer bulldozers work over small wheal tractor and animal power for embankments construction, erosion saving work, and leveling of lands (both cut and fill). Incase of water related work use of bulldozer is common for small storage dams, ponds for drinking water and animal use, structure for water diversion, and delay action dams. In some cases unsuitable vegetation is also removed with the help of bulldozer work which otherwise is hard to get rid off. During 1994-95, 14,000 bulldozer hours were used from member parliament quota and only 1000 hours were used through routine work of department. In the following year of 1995-96, 21,000 hours were given by member parliament and only 2,000 hours work was performed through routine way.

Provincial Set-Up:
Mechanized cultivation section remained part of agriculture department in the province for many years. Later on this section was named as Machinery Maintenance Department and then again was changed as agricultural engineering wing of agriculture department. At provincial level it is headed by Director Agricultural Engineering. Assistant agricultural engineer is in-charge of wing at district level. Assistant agricultural engineer has qualification of Bachelor in engineering; a four years course after 12 grade. Usually this job is through public service commission examination. Bulldozer operator works for several years as a helper and attendant and becomes full operator/driver. He is in grade – of government pay scale. Main workshop of bulldozer is in Quetta where repair and overhauling of bulldozer is done. 6 divisional workshops are located in all previous civil divisional headquarters of province where these bulldozers are repaired. Bulldozers are purchased from private companies and they are responsible for after sale service for a certain period when company technical person monitor the operation and provide guidance for maintenance and operation.

Bulldozer is given to a farmer who applies to department usually at district level office. He attaches a copy of landholding papers and fills a challan form mentioning number of hours and purpose and deposits money in the bank. The deposit receipt is submitted into office and work order is issued. He needs to take then bulldozers at his land and transportation cost is borne by the department. Usually, but not necessarily, bulldozer is available in his near vicinity already working on someone else land and in such cases preference is given to neighbor farmers in order to save the transportation charges. Mainly land through dozers is developed under Sailaba and Khushkaba system. Alone Sailaba irrigation system consists of about 25% of total cultivated area in the province.
In 1980 and 1990s about 20,000 ha land was improved yearly through government bulldozers and

other machinery (Balochistan After Independence 1997). Department is proud to claim that each field developed for present day agriculture throughout the province is due to their hard work of bulldozers. Alone area under wheat increased from 161,000 ha in 1947 to 430500 ha in 1995-96.

Bulldozer work was much needed in Kachhi plains and in Loralai district. In Kachhi spate irrigation is done since centuries through an indigenous water user organization. It is claimed that 50 years back former Kalat state has 80% revenue alone from Kachhi region and this was due to spate irrigation. Big diversion structures are made with the help of bulldozers and large fields are repaired every year in the Kachhi plains. Bulldozer availability in this area is a matter of life and death due to heavy use for spate irrigation. In this area Bolan and Nari river and hill torrents from western and eastern hills drain. Water passing through these torrents is controlled and fields are irrigated. Are has heavy dependency upon spate irrigation as other sources of water are less developed and even not enough. In Loralai district fields were developed to use flood water from two rivers namely Anamabar and Nariachi. During 1950s Loralai district has second position in wheat cultivation after canal area of Naseeabad region. That is why during those times bulldozer work was more in these two regions, i.e. Kachhi plain and Loralai district.

The on farm water management program started in late seventies has component of land leveling besides lining of storage tank and cementing of water courses for agricultural development. For this purpose high tech. leveling equipments were imported to be used with bulldozers.

Spate irrigation system once in decline due to weakening of social organization behind it was again stimulated by use of bulldozers in the province. The social organization once able to mobilize human and animal power for construction of diversion and storage dam to control and distribute water then used machinery to cope the situation as bulldozer was able to perform the same amount of job in much lesser time with high efficiency. However, it was a temporary solution to address the problem. To get bulldozer hired from government is not easy fro every farmer as demand is more and working capacity is less. Therefore, influence of one or other type is required to get bulldozer hours sanctioned from government side. For this poor and small farmers are deprived in some cases. In some cases when bulldozer is hired by influential landowner he tries to get remained dozer on his lands even on the cost of less work performed as other farmers especially opponent should not get it to use on his lands and then become rich. In this way work performance of dozer is also decreased.

The functionality of bulldozer is another issue where hindrances are observed as fuel and other necessary items to be replaced after certain hours of operation are not reached at site which is usually far away from the office/workshop. In some extreme cases even fuel and other items are directly purchased by the farmer in order to complete the work in time, which otherwise is the responsibility of department in any case.

Literature:

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