

AGRICULTURE ECONOMY CRISES IN SINDH WHICH HAVE CRIPPLED RURAL ECONOMY (1950-2000)

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Sindh is undergoing series of serious crises in agriculture economy and following are the highlights:

Irrigation.

- The 1990 water accord is controversial and not acceptable to Sindh under any circumstances. Its needs to be revised as this is the popular opinion of the people of Sindh since the past 10 years.
- Even this accord is not being followed in letter and spirit and the Sindh Government has to take measures to get adequate supplies of water in time for raising crops.
- Today more water flows in the Sukkur Barrage canals than it did in 1932. The excess water flowing in various canals varies and in some cases is 66% more. The excess water has to be distributed in whole canal command in equitable ratio and it should flow in various branch canals, distributaries, minors and watercourses in proportion to the overall increase. Watercourses outlets have to be remodeled accordingly.
- Strict measures have to be taken to stop tempering of modules.
- More water is being applied to the land than needed to raise crops.
- A strong extension service has to be created to reduce the application of water in the field.
- The farmers lands are not precisely leveled. Government has to encourage precision land leveling by use of laser operated leveling equipment. Limited equipment with agriculture department has failed to work satisfactorily or economically. Private sector can be inducted for the job.
- Modified methods of field irrigation have to be introduced to save application water to the fields and with proper planning saving of water to the tune of 40% is possible.

- Water so saved has to be utilized on lands not already cultivated. Ultimately it would mean extension of command area of each barrage.

Drainage.

- At the time of formation of One Unit, Punjab was losing 1,000,000 acres of water/year under water logging. In the whole period of One Unit Punjab resolved their problems at the cost of all other provinces and after break of One Unit every Province under new constitution has to cater for its own needs of drainage. It means an extra burden. The cost of drainage therefore must be met from joint resources of all the provinces i.e., the Federal Government should pay the cost of drainage of the provinces.
- Left Bank Outfall Drain is working; water is going to the sea. There are same problems in the tidal zone and also en-route, but political hue and cry unnecessarily created, has reduced the interest of the donor agencies. The LBOD ultimately is going to carry 5-6 times the present discharge and other phases of it needs to be under-taken and completed over the next years. We have to press for its early execution and at the cost of Federal Government.

Right Bank Outfall Drain.

- The RBOD water needs to be discharged by bye-passing Manchar Lake. Is a technical problem and out-lets to the river Indus must be decided on technical considerations without interference of politicians.
- The present opposition to RBOD discharge into the river Indus is purely political, raised by few politicians, who want to make capital out of it and it needs to be ignored.
- The Nai Gaj once in 20 years discharges some million acre-feet of water in a few days and washes fields and villages in Johi Taluka and parts of Dadu and Sehwan Talukas before it. Such recurrence in the past 50 years has taken place in 1956, 1977 and 1994. Every time it kills many hundred thousands cattle, sheep, goats and other animals and as reported many human lives too are lost. A permanent arrangement to divert this water has to be done by constructing drains which could also be part of RBOD.

AGRICULTURAL CRISES.

Cotton.

Pakistan's internal consumption plus export potential is about 9 to 10 million bales. Pakistan increased its production to 12 million bales and exceeded its export quota by illegal smuggling. Since past 7-8 years it is known that China with its production of 30 to 35 million bales was not entering in the export of lint cotton as they did not have baling presses of international standards. Their bales weigh 70 lbs against 380-400 lbs of international standard, were not export oriented. China started putting baling presses and they are now in competition with Pakistan. The Central Asian cotton exports were limited to USSR only and they too are in the export market. This has hit Pakistan cotton and textile export.

Genetically evolved cotton could come in the market in the incoming years and cotton production can easily double. We therefore have to reduce the area under cotton production but increase per acre production. The surplus land has to be diverted to other crops.

Rice.

Genetically evolved rice varieties are getting into farm lands. This means more production but export potential is limited as per population of importing countries. In view of extra production in years, we have to reduce area under rice and go for alternative cropping.

Sugar-cane.

The CI&F New York price of sugar as it stood on eve of year 2000 was Rs.8.32/kg. Our local retail price is Rs.18 to 20 per kg. This is more than double the international prices. The consumer in Pakistan is not aware of it and once agitation starts government must surrender. We have to resolve the problem by improving the cultural practices at the farm level, improve efficiencies of sugar-mills and bring prices to half. The present high prices of sugar are political motivated to the disadvantage of the whole nation. The yields per acre in Sindh averages at 600 mounds against 1400, 2200 and 2400 mounds respectively in Iran, Kenya and Cuba. We have to improve our agronomical practices to hit that target and lower the prices or we will have to get out from the whole business. In the later case we have to know the alternative crops.

Wheat.

The price of wheat is fixed artificially low and varies between 40-50% of the imported prices in the last 15 years. In the year 1999 price of imported wheat was Rs.450 per mound where as farmer was getting Rs.265 only. Price of wheat in Afghanistan, Iran and India was Rs.550, 450 and above 300 per mound respectively. In Sindh wheat comes the earliest and is smuggled out to Punjab, Baluchistan and NWFP to be re-smuggled to above countries and thus Sindh becomes large consumer of imported wheat. The Federal Government decided to that subsidy of Rs.200 to 235 per mounds for imported what utilized in Sindh may be debited to Sindh. Sindh suffers doubly by getting low prices on its own wheat and paying subsidies on imported wheat. The consumers of imported wheat in big cities form at least 50% of outsiders from other provinces as well as from other countries living here legally or illegally.

Horticulture.

The climate of Sindh is most suitable for all categories horticultural crops namely; fruits, vegetables, flowers and medicinal and aromatic plants. Some exotic industrial crops also fall into this class. Sindh does not have a single PhD in Agriculture Department as of today. There is also no well trained person in horticulture in the Department in Sindh. There is tremendous scope of export of all horticultural crops. Only limited quantities of fruits are exported but not to sophisticated markets of the Europe and the Northern America. There is an unsaturated market in Europe, Northern America, Australia and Japan. The switch over to these crops can change face of Sindh. It will create 3-4 times employment on the farm and about half this number in allied trades like; post-harvest, packing plants, transport, export and other services and supplies. The farmers can easily triple his income, provided proper guide lines are provided by the government or private sector.

The switch over to horticultural crops will be an alternative to the area relieved from other crops.

Cattle farming.

Primitive methods of cattle farming based on grazing animals on waste lands and feeding them agriculture wastes like straw, mixed with small quantities of green grasses and occasional oil-cake is out-of-date. The government sponsored schemes for meat and milk products supported by bank loans are managed by a few urban middle class people, have all shown no real impact. The schemes have to be rural based, managed by rural farming community and feed produced locally. The whole process has to be highly scientific and economic oriented with strong management and oriented towards training of the rural people.

The present schemes involve only cattle for milk and meat. Emphasis has also to be put on sheep and goat, the number of which under natural grazing conditions in Sindh is 4-times that of cattle. The future schemes have to be scattered throughout Sindh to create employment opportunities and improve economy of rural areas, in addition to creating employment. To make sure that development will be uniform, each Taluka in Sindh is to have equal number of cattle centers so that area develops uniformly.

Fish farming.

- Fish farming schemes launched since 60's have not shown good results due to lack of surplus water in irrigation channels. Natural lakes and depression exist in some areas especially on the right bank of the river Indus and in Kotri Barrage. They are not managed properly. In spite of provision of hatcheries at Thatta and Sukkur.
- The failure is on account of inadequate education and training to the fish farmers.
- Big depression and lakes are not managed properly.
- Lake like Manchar, Kenjhar, Kalri and Haleji are infested with weeds, which hamper adequate fish populations. Privately owned lakes are poorly managed. Water of the Manchar Lake had gone brackish for many fish species. Efforts have to be made to over-come the problem.
- There is a tremendous scope of protected fish farming in various creeks and is not difficult to reorganize it but protective methods alone can achieve the objective.
- There was scope for prawn farming in all creeks of Sindh in 1983. Lack of fresh river water discharging into the sea since then, has increased salinity of creek water to the limits under which prawn farming is not possible. The exception is a few creeks near the mouth of the river. In the same way scope for giant shrimp farming has reduced due to lack of fresh water on the up-stream side of the river.

Post-harvest plants for fruits, milk, meat and fish.

Post-harvest plants to properly pack fruits and vegetables, chill milk, cool meat and fish properly and transport to the market under refrigerated conditions do not exist in Sindh. These facilities can create extra employment and economic

opportunities and also bring more income to the farmers if such facilities are provided in each taluka, to the private sector.

Mechanization of agriculture beyond ploughing.

- Mechanization of agriculture in principle involves row crop tractors and the implements that go with them. With row crop tractors and implements yields of many crops can be increased by 38% in the very year of its introduction and will increase by 50% within 3-4 years when land owner and tractor operator have gained experience and expertise.
- Row crop tractors with a full set of implement can make it possible to bring up to 40 acres under vegetable crops and be owned and operated by single rural family, except that some additional labor will be needed for harvest.
- Row crop tractors can make it possible to mechanize cotton, sugarcane, castor beans, ground-nuts, potatoes, arbi and many root crops, in addition to all kinds of vegetables.
- Row cropping can save water to some degree.
- What is presently needed is an introduction of row crop tractors in place of conventional tractors and a number of implements. The only change needed would be some modification in the front axle and set of implements. The whole thing will work only after proper training to operator.

New crops for Sindh.

On our farm, I and my wife have recently introduced many highly paying fruit crops and the best ones of them are now being raised on the commercial scale. These are:

- Peaches.
- Apple.
- Grapes.
- Seedless pink grape fruit.
- Pomegranate.
- Lychee.
- Longan.
- Fig.
- South African pink guava.

Most of these crops have potential of net returns of order of Rs.100, 000 or more per acre. Since introduction of 27 new fruit crops in the past 15 years we have concluded that it is possible for educated farmer to pick up this technology and benefit by introducing these fruit crops on their lands.

CONCLUSION.

- The main cause of lack of agricultural development in Sindh is inadequate facilities of Agricultural Education, Agricultural Research, Agricultural Extension and Agriculture Engineering. These need to be strengthening along with great emphasis on field irrigation in which presently there is no trained staff.
- It has to be recognized that Sindh is the most suitable area for horticultural crops and therefore all efforts have to be made for strengthening this field.
- The minor and distributaries are not being de-silted. Recent example of silt clearance of 8 distributaries by farmer themselves on Jamrao canal command in Sanghar, Nawabshah and Mirpurkhas districts shows a great possibility of land owners carrying the job with their own effects and with their own laborer and therefore there it is suggested that such task may be carried out by land owners within the respective areas of their irrigation water courses and drainage channels and government to compensate them.
- Sindh should formulate a long term policy 25, 10 and 5 years plans for agriculture, irrigation, drainage, science and technology, health, and roads. The people involved in planning may be; a small and limited number of government officers, and non political individuals with vision and some foreign specialists, so that changes in the political government do not upset the recommendation of the experts and execute the various plans according to the time schedule.

Green Revolution has failed.

Synthetic fertilizers, pesticides and herbicides, have killed soil fauna and turned soil almost sterile, reducing its productivity. To over-come the problem, we have to reduce application of fertilizers, pesticides, herbicides, and power tools, investigate alternatives; use manures composts, mulches, foliar feed and micro nutrients etc.

Agriculture Income Tax.

Agriculture income tax is being used as boggy to harass the farmers and divert attention of urban resentment against invisible feudal. We should welcome the income tax, if all other taxes including octori levied on land and its produce are removed and only one tax is collected and also if farmers are paid international prices for their produce.

Institution of Kamdras (uneducated farm foreman).

Every sizeable land owner engages a farm foreman or Kamdar. In general his qualification include; very little or no education, bullying the tenants and fleecing them, harassing small neighboring land owners, controlling water and denying water share to the neighboring, cheating land-owner and keeping good relations with police to harm those who he considers as self respecting and independent people. He lacks technical abilities. To replace him, we have to train post-graduates in any scientific field, to become technically sound to replace Kamdars as farm managers.

Agriculture Education, Research and Extension.

Agriculture education has deteriorated as due to lack of knowledge of English language, teachers cannot read latest books and for those who can read, latest books are not available in the libraries. It was a blunder to make Sindhi as medium of teaching in technical subjects. The only and quick way to restore teaching of technical subject in English language. There is no short cut.

Agriculture Extension.

It is non-existent in Pakistan. We have to resort to privation.

Agriculture Research.

Agriculture Department in Sindh does not have a single Ph.D. Locally educated PhDs are good for nothing. There are no facilities of latest equipment and if they are there, there are no people to operate them. Privatization of agriculture research could change the situation.