CHAPTER VII

THE ECONOMIC IDEAS OF MAHARAJA

SAYAJI RAO: AGRICULTURE
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Sayaji Rao in 1881 was sufficiently cautioned by the Dewan Sir T. Madhav Rao in his lectures on the intricate problems of agriculture, industry and others. He advised the Maharaja to encourage multiplication of agricultural production and produce more by better ploughing, better manuring, better weeding and irrigation. The ryots of the State should be enabled to obtain waste land on easy terms and on a secure tenure.\(^1\) It is difficult to ascertain how far did young Sayaji Rao grasp the preachings of the Dewan at that time. But Sayaji Rao seemed to have given a deep thought to the agrarian problems of the State and of the country since 1886.

Before taking up the ideas and reforms of Sayaji in this sphere, a general idea of the agricultural development of the State in three broad-based periods may be given here as a background.

The first period from 1887 to 1908 is highlighted with agricultural education, agricultural banks and experimental farms. The second period from 1909 to 1927 is marked with the consolidation and energetic expansion of what had been done in the first phase. The third period commencing from 1927 to 1939, proved to be the most remarkable for the all-round increase in agricultural development activities. The Baroda State got "definitely associated with the Indian Central Cotton Committee, the Imperial Council of Agricultural Research and many other associations of world-wide fame.\(^2\)

As early as 1886, Sayaji Rao thought of establishing an Agricultural School in the State. The idea originated to him from a letter dated November 16, 1886 from Hargovinddas Dwarkadas Kantawala, a leading citizen of Baroda. Kantawala urged the

1. MH, pp. 199-201.
Maharaja to establish an Agricultural class and to make provision for the funds. In reply to this letter Sayaji Rao passed orders accepting the proposals and suggested Unjha (North Gujarat) as a place for such a school because the villagers of that place had been primarily agriculturists.

Further, he expressed his "desire" to "force" the Government servants, of the Revenue Department, in course of time, to attend this School. If that turned out to be successful, he thought one or two more such schools might also be started at places like Songadh (South Gujarat) "... Where agricultural knowledge is at its lowest ebb." Sayaji Rao wanted that the possibility of the boys joining the School should be explored without giving inducement in the first instance, failing which, the scholarships might be provided to them.

This long order of Sayaji Rao may be viewed here in connection with his oft repeated beliefs and announcements, that education is the basis of all his reforms and the welfare of his people at large.

In 1892, inaugurating the supply of water to Baroda from the reservoir at Ajwa, he said that after the multiplication of girls' schools, there was no measure he had more at heart than the dissemination of primary education among the bonafide cultivators, especially by gifts and other inducements among the depressed classes of the State. In 1902, he said that he wanted the cultivators to have primary education which would help them in their life and profession.

Agricultural Education

Sayaji Rao felt that the system of general education would awaken the curiosity of the cultivators and enlist their sympathy

1. Orders of His Highness The Maharaja Sahib, 1886-87 to 1888-89. Confidential (Baroda, 1891), pp.55-56.
2. Widgery, SAMSG, p.31.
3. Ibid., p. 94.
for adopting measures which would demand from them high level of intelligence and scientific knowledge. Without general education, the best of the endeavours would fail.

He admired the establishment of Agricultural Colleges and model farms in different parts of the country, but noted with regret that the agricultural output had increased without appreciating results. He attributed some reasons to such results. Firstly, it was due to the vastness of the area and to the great variety of conditions because each district had its own difficulties and were to be overcomed. Secondly, the indifference and apathy of the people themselves of such difficulties were also responsible for it. Thirdly, he felt that "the measures have come from outside and not from the people." Therefore, they have become less acceptable to them. Fourthly, he averred that in spite of imperfect system of education, not more than five per cent. of the population of the country have been affected.

After stating the causes he observed, "Before any noticeable change can take place, there must be a general feeling among the people that improvement must be made and a desire to take advantage of the efforts of Government." He pointed out that the destructive criticism of the people who were more inclined to laugh at the attempts of the Government rather than render help to the Government by advice, were disappointing. Without their advice and such help, their real difficulties could not be mitigated. It was the intention of Sayaji Rao to point out the helplessness of the Government in an atmosphere wherein the cultivators preferred to cling to their ancient methods which might have perhaps seemed to them best.

Education forms a vital step in reconstructing new social and economic life of the people. The first movement in which agricultural education was provided for better farming, was initiated in 1887 in Baroda. A class with twenty-five students was started. In 1895, for the benefit of the boys of the backward

1. Ibid., p. 101.
classes, separate schools were also opened at Songadh, Arhati and Maha in Navsari District and at Kadi (North Gujarat). This movement of providing agricultural education to the backward classes, failed, as general education was less advanced and the training was more of the schoolroom than of the fields. The interest could not be maintained in spite of many concessions given by the State. As a result, the agricultural class at Baroda was closed down in 1910.

In the second phase that commenced from 1907, a complete loss of interest in agricultural education was found. Though an attempt at Baroda was made in 1916-17 by offering scholarships to the students. Yet most of them left in a year. It was not till 1926 that the interest was created in this education. The interest showed such an upward trend that the demand for admission exceeded the accommodation. An Agricultural Institute was established at Baroda in 1936 and an Agricultural Vocational Institute was created in 1938. During the third phase namely 1927-1941, many schools for agricultural training were also established in rural areas by the State.

By the end of 1938 agricultural education was imparted as under:


Exhibitions and shows of various kinds, formed an integral part of agricultural education. The first agricultural and industrial exhibition was held in 1923. In the third phase, the travelling train exhibition in Mehsana and Baroda Districts of 1928 and 1930, the Diamond Jubilee exhibition of 1936, the exhibitions of the Rural Reconstruction Centres at Kosamba and Karjan and the Plantain exhibition at Asoja were organised.

On Agricultural Production

In 1902, speaking on the Revival of Industry in India at Ahmedabad, Sayaji Rao held that India possessed a great bulk of raw material both for agriculture and industry and it could be procured more. In order to achieve increased quantity and improved quality of the produce from the fields, the Indian agriculturists must look to science for improvement.

In the support of his belief, he mentioned that sugar and cotton formed two important items of India, for export trade. He desired that the Indian cultivators should pay attention to what India's rivals in these fields have done with the help of science to improve and increase the production. Referring to the cultivation of beet-sugar, he said that it could be "...gradually developed by careful selection of the best roots and the application of agricultural chemistry, until the percentage of saccharine has been doubled or trebled." By citing this illustration he wanted to emphasize on the best methods for adoption for increasing the production of sugar and cotton.

Before the cultivators seek help from science, Sayaji Rao wanted them to overcome their state of "ignorance and apathy." Reviewing the causes of ignorance and apathy, he said that they began with the acquisition of political power by the East India Company and the absorption of India into the growing British Empire. The old crafts were ultimately ruined by the loss of internal trade, by the imposition of heavy transit duties on inland commerce, by controlling the work of local artisans by the commercial Residents of the Company, by introducing the prohibitive duties on Indian goods in the British Empire and by adopting the Free Trade policy.

As a result, vast numbers of artisans were thrown back on the soil who were neither intelligent nor progressive. Even though, they possessed traditional skill, they were neither

1. Ibid., p. 90.
enterprising nor capable, of undertaking improvements which demanded considerable energy and foresight. Therefore, according to him, those factors were responsible in making the Indian peasant poorer and poorer and diminishing his resources constantly.

**Methods of Improvement**

As Sayaji Rao analysed the causes of ignorance and apathy, he also showed the remedies to overcome them. He divided them into two categories, firstly the improvement in methods, implements and general conditions and secondly the increase in education. It is necessary here to see how far he adhered to his ideas and implemented them in the State.

**Breeding of Cattle**

In the first category of remedies he suggested that the breed of cattle should be improved and the people should also undertake the breed of other stocks such as horses and mules. He deplored that the Indian breeds of horses were dying out and there were hardly any sensible efforts to keep them alive. He said, "I believe that much might be done by reviving the old custom of keeping sacred bulls in every village and taking care that the bulls supplied were the best that could be procured. Much might be done if the cultivator could be persuaded to breed only from the best animals."

**Measures**

In the first phase (1887-1908), the first Veterinary Dispensary was opened in 1880-81 at Baroda and by the close of the first phase there were such dispensaries at Mehsana, Baroda and Amreli. The improvement in the breed of livestock was also undertaken by the issue of selected bulls in 1892-93 and later on in 1895-96 in a scheme to issue free Gir bulls. In the second phase a premium bull system was established and concessions were made available for co-operative breeding. The modern methods of castrations were introduced in 1924-25.

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1. Ibid., p. 96.
2. Ibid., p. 97.
The Veterinary Dispensaries in the State were three in 1907, thirteen in 1923, twenty-three in 1927 and thirty-seven in 1941. The premium bull system was further developed and two new schemes were introduced for livestock improvement. The first was the Kankrej (Banaskantha Dist.) breeding farm scheme that aimed to supply pure Kankrej bulls for improving cattle. The second scheme was the Rabari development scheme. The Rabaris were the chief cattle raising community in Gujarat. They were landless and depended on such grazing as they could find on the village common or in the cultivator's fields. Their stock generally remained poor. The Rabari development schemes aimed to put the Rabaris in a position to produce necessary feeding material for their cattle by developing the available Government grass and waste lands and improving their conditions by carrying on their work systematically and scientifically. The scheme had two features, the colonisation system and the settlement system.

Seed Supply

Sayaji Rao desired that the cultivators, instead of relying upon Government's help, should begin to help themselves. They could plant trees around their fields and encourage the "fibrous plants" which had become articles of commerce. Tree planting would also secure conservation of the soil. He referred to the question of good drainage to relieve the bad effects of irrigation. He seriously felt that "a serious ryots to sow only the best seed and to pay some attention to the best rotation of crops."

Measures

In the State, as a part of the Agricultural Research Programme, experimental farms were organised as early as 1893. These

2. The Kankreji (Saurashtra) breed is well known throughout Gujarat and is much esteemed for the size of the bullocks.
farms performed two duties, one of experimenting under local conditions and secondly, creating sufficiently in big quantity the improved seeds for distribution to the farmers. For example, in the later years of Sayaji Rao's reign, the State offered a variety of seeds that were made suitable and improved for the different soils of the State.


Plant Breeding

The Agricultural Research Programme also included plant breeding. Each district of the State had its own particular soil and climatic conditions and in each the varieties of crops best suited differed from others. Cotton had been a uniform crop throughout the State. In the Navsari District (South Gujarat) the main problem of producing better cotton was tackled. As a result improvement was achieved in the type of 1027 A.L.F. Cotton. Field trials with the types of jujar, bajra and castor were also carried out. Fodder types of jujar were also considered.

New Implements

Sayaji Rao earnestly hoped that the peasants should adopt new implements like iron flails and thrashing machines that would help them to get better yield from their farms. But he observed that the peasants had apathy towards such new implements.

When he said this i.e. in 1902, no provisions were made by the State to give such implements to the cultivators. As said elsewhere travelling agricultural exhibitions were organised by

2. Ibid., p. 72.
the State and the new implements were displayed at them. Moreover, the financial condition of the cultivators was not so good that they could afford to purchase such new implements. And it was in 1937 that the first systematic effort to design and construct agricultural implements suited to local needs and to create a local industry, was made.

Irrigation:

Sayaji Rao attached great importance to irrigation schemes in the State. Prior to 1885 irrigation was done by means of crudely managed rice ponds or small tanks. It was in the early 1890's that a regular, well defined and controlled system of irrigation started. The unprecedented famine of 1899-1900 gave great impetus to the installation of well-defined irrigation schemes in the State.

In 1902, Sayaji Rao said, "In a country like India, where the introduction of improved implements is so limited in its possibilities, and where everything depends upon the timeliness and sufficiency of the annual rains, it is irrigation that must necessarily take the largest place in all plans of agricultural improvement." From his study he traced the endeavours made by the successive rulers in India from ancient to modern times who recognised the importance of irrigation. He also admired and complimented the work of irrigation made by the British in Madras Presidency which according to him "... will always be one of the most splendid and irreproachable chapters in the history of India."

He proposed a new idea of offering to the capitalists of the country a field like irrigation for the investment of their surplus savings. He wanted to associate them while carrying out the extension of irrigation works in the country, though the success depended on the co-operation of the people. Here he seems to have inferred peculiarly from the example of European capital

2. Ibid., p. 99.
that was extensively employed in the railways of India. The practicality of this suggestion is full of doubts.

He thought that the digging of wells was another way of protecting the country against the effects of drought besides great irrigation works. But he warned the people that the irrigation would not end all troubles, if it were not applied with considerable measure of intelligence and foresight. Otherwise, it would bring other troubles like the debilitation of the soil. For the debilitation of soil he suggested the use of manures. This point is taken up after examining his measures in the field of irrigation.

The irrigation measures taken before 1899 have been mentioned before. After 1900 an ambitious irrigation policy costing about Rupees fifty to sixty lakhs was laid down and its implementation was started. To name some of the principal works, the river Orsang Feeder and Wadhwana tank system in Baroda District, Dosuwada tank in Navsari District, and other similar works in other districts were constructed. In course of time, the irrigation policy in Baroda lost its weight due to lack of willing use of the cultivators of irrigation facilities. For several years no new marked works were undertaken and the existing ones were allowed to fall into deterioration.

But after twenty years i.e. after 1927, a policy of preserving and rectifying past irrigation works was pursued. By the end of 1939-40 there were 88,213 wells, 10,195 tanks and 564 other sources of irrigation which included river irrigation, irrigation by pumping and irrigation by tubewells.

Use of Manures

As a remedy to arrest the debilitation of the soil by over irrigation Sayaji Rao, suggested the use of different types of manures. While suggesting this he pointed out the striking example of cultivator's lack of foresight and ignorance and of that of exporters' in the field of cotton-seeds.

He said, "In face of the deterioration of the soil... it is inconceivable to me that we should seek to encourage the export of cotton-seeds on which so much of the efficiency of the simple manure, which we use here, in Gujarat depends." In 1902, the export of cotton-seeds rose from five to twenty lakhs of rupees. He apprehended that if such trend continued, the cattle would have to go without cotton seeds and "their manure will soon become practically valueless." Therefore, as an alternative to cattle manure, he suggested artificial manure and called it "a crying necessity."

In 1936, writing to his Dewan Sayaji Rao intimated his idea of using "human excreta" for manure purposes as was done in China and Japan. "It would be to our advantage," wrote he, "and you might see if it is possible to get one or two Chinese or Japanese here to demonstrate the method, when people understand it, the practice of using such excreta for manure purposes."

In spite of such views of their Maharaja, the cultivators in Baroda clung to their old method of cattle manure, because there were no facilities for procuring artificial manures. Whatever may be said, Sayaji Rao's vision to think of artificial manures for better cultivation, is noteworthy.

**Growth of Grass**

Sayaji Rao thought about deep-rooted grass that would resist drought and prevent the terrible mortality of cattle in times of famine. He exhorted the people to follow the example of Australia in that regard and find out indigenous deep-rooted grasses which could be planted systematically on waste land. It would help to meet the needs of drought.

In 1905, writing from London to R.C. Dutt, the then Dewan in Baroda, he ordered him to study the papers sent by Frank

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3. Widgery, SAMSG, p. 100.
Birdwood and to examine the possibility of cultivating China grass "somewhere in our territory."

These views suggest that Sayaji Rao had the faculty to look elsewhere for satisfying Indian's needs.

Cottage Industries for Farmers

Sayaji Rao seems to have well thought of keeping the agriculturists in times of slack season by engaging them in constructive and remunerative work. The agriculturists and the members of their family should engage themselves in cottage industries. Men can take up wood-carving and toy-making and women can engage themselves in needlework and embroidery. Much later in 1936 he added rearing up of hens and ducks for the men agriculturists.

Students to become Farmers

The problem of improving the condition of millions of cultivators and labourers who lived in villages and towns, seemed very important to Sayaji Rao. He thought that the work of ameliorating the condition of the masses, especially of the cultivators and the labourers, can be undertaken by the active citizens.

In 1909, speaking before the Baroda College Students he expressed his desire that some of the young students should settle down in the country as farmers, adopt improved methods of agriculture, start co-operative credit societies and "introduce in villages something of the civilization of the age." The result of such work would encourage the cultivating classes, introduce among them improved ideas of health and sanitation and would help them to take interest in the management of their own villages.

1. HK HQ, 1904-05 (Baroda, 1910), No. B-90, dated 14-7-1905 pp. 262-263.
4. Widgery, SAMSG, p. 239.
Sayaji Rao firmly believed that the economic condition of the people would remain better if the development of both agriculture and industry was balanced. He felt that in the case of India, this principle held good because there was no parity between agriculture and industrialisation. It remained far from achieved. This thinking clearly shows that there was no change in his belief which he had expressed in 1902 at Ahmedabad.

For the industrial advance, he put his thinking differently. "There can be no industrial advance in India," said he, "unless the material condition of the millions of agriculturists and workers in the country is improved." He stated that the industrial advance is related to the purchasing power of these people and that power would ultimately determine to a greater extent the demand for the output of factories. Therefore, he conceded that the industrialists should actively support all programmes for the building of rural life in many of its sides.

Famine in the State

The famine of 1899-1900 hit hard the Baroda State territories. Sayaji Rao ordered prompt measures and organised a Famine Department instantly. A Famine Code was hastily drawn up in 1899 and relief operations were undertaken in the famine struck areas of the State. Sayaji Rao personally toured such areas to acquaint himself with the miseries of the people in 1899-1900.

3. Ibid., p. 888.
4. He visited Kadi Division (North Gujarat), Amreli Division (Saurashtra), Baroda City and Baroda Division and the Navsari Division (South Gujarat). His account of the tour has been published by himself in a book entitled "Notes on the Famine Tour" (London, 1901).
Causes of Famine

Sayaji Rao knew well generally all the causes of calamities like famine. But he regarded "the great poverty of the people" as a major cause for them. To this he added "...want of real thrift, want of energy and enterprise of ambition, and a high fatalism, and supineness in the face of calamity." Poverty emerges out of all these defects. If this state of affairs was not removed and the people were not taught the lessons of self-help, the things would go from bad to worse.

He expressed his astonishment at the people's helplessness and passiveness. He bitterly remarked that "The idea of energetic assertion of their difficulties, especially in the presence of adversity, seems to be foreign to their mental habits." Sayaji Rao was right in making this observation about people's helplessness, but he did not take into consideration the major factor of poverty and the foreign domination which retarded their economic development and restricted their freedom. It is inconceivable that a man like Sayaji Rao should have failed to observe such things. His position as a ruler made him to overlook or ignore the realities suffered by the people. Therefore his observation criticizing the people for having no "energetic assertion" would hardly convince any one when the people lived with bare necessities, discontented and disgusted.

Sayaji Rao attributed the absence of self-help as the fact lying behind poverty. Perhaps, in support of his contention he observed that the people of India depended almost entirely on two means of subsistence. The educated classes enter Government services and the uneducated take to agriculture. He did not elaborate this point but called it a fact. This remains inexplicable and does not help to understand him clearly.

Encouragement to Trade and Industry

For an agricultural country like India the lesson of famine, as understood by Sayaji Rao should be found in the

1. Widgery, SAMSG, p.45.
encouragement of trade and industries. India and Russia having large populations cannot entirely depend on agriculture and that can never be safe against famine. He based his thinking bearing in mind the secret of European prosperity which he found in the prevalence of manufacturing industries. He wished that India should become a manufacturing country not as predominatingly as England but sufficient enough to meet the challenge of the famine. A manufacturing country with its wealth, is in a position "to buy food from abroad and disregard rains and droughts, good season or bad season." His reasoning seems logical and carries weight.

If the industrialisation of country is decided upon, then naturally all kinds of reasonable facilities to enterprises and an education in that direction would have to be provided. After all such type of thinking, he descended upon his oft-repeated and firm conviction that education by instruction and example serves the basis of self-help.

Relief Measures

The Maharaja writing to Sir John Watson, mentioned great difficulty in undertaking useful projects as relief works, because of the country being flat and purely agricultural. He regretted that the State had no such work which would engage a good number of labourers for a considerable time, eventhough 65,000 labourers were engaged in the work. In another letter he confided his fear that the State would exhaust all its savings if such conditions lasted longer.

As a part of relief measures, he ordered the construction of the Orsang (River) Irrigation Waterworks and in 1900 he performed its opening ceremony. In a speech he said that in times of calamities "the pressing need a Government feels is to relieve the stricken population in whose welfare it feels its own involved." 5

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1. Ibid., p. 46.
3. 1899, p. 40.
In the speech he gave a clear view of his thinking about the relief measures. This may be taken as his famine policy. Keeping in view of the results of the relief operations, he suggested three categories. Firstly, he considered such measures as would "give relief merely and go no further." These should be limited in extent "especially where it takes the shape of poor houses, doles or advances etc." The aim of such measures should be "to save the lives of those who can do no work, whether from excessive suffering and emaciation, or from social position." He wanted to give due regard to the social position or habits men and women which prevented them to seek relief even when perishing of hunger. He had in mind the case of the purdah women. In the second category, he thought of such measures that would be "productive in an indirect way," for example the opening of new means of communication especially the railways. Developing this point namely the construction of the railways, he enumerated the benefits arising from it. The railways would carry away the surplus produce which would otherwise give reasonable change to store it. The railways also facilitate the import and export and in times of famine, it plays an important role in mitigating the effects of the famine. The advantages of a railway system are incalculable "to trade and commerce, especially if its construction is unfettered by artificial restriction."

In the third category, he included those measures which would be "directly productive, and therefore, not only a relief in the present, but a prevention of future famines." The means of communication help to circulate production and prove advantageous. Irrigation works, sinking of wells, making of the dams, cutting of the irrigation canals, etc. would definitely offer a security against the evil effects of the famines. He termed the Orsang Irrigation and such other works more momentous "larger in conception and more widespread in their effects."

1. Ibid., p. 41.
2. Ibid., p. 42.
His thinking revealed that he did not believe in adopting short-lived measures but preferred those that would have lasting benefits and show wisdom. He wanted to strike at the roots of evil which if allowed to grow, would in the end baffle the resources of the richest government.

British Famine Policy

In the nineteenth century, and more particularly in the post-1857 period, famines visited Indian territories in increasing frequency and intensity. In 1861, a terrible famine desolated the Punjab, Rajputana and Cutch. In 1866 Orissa became the victim. In 1873-74 Bihar and some parts of Bengal were visited by a less serious famine. In the famine of 1876-78, large areas in Mysore, in Madras and Bombay Presidencies, in the Central and United Provinces and also some parts of the Punjab, were seriously affected. The famine of 1896-97, "believed to have been the most severe ever known," desolated the United Provinces, the Central Provinces, Bihar and some parts of the Punjab. In 1900 Gujarat suffered from a serious famine.

When the famines raged the country the Government of India contended itself with appointing Famine Commissions and adopted such measures which proved inadequate and wanting in earnest efforts to mitigate people's sufferings. It was only in Lord Curzon's time that the problem of famine was seriously recognised and a Famine Commission was appointed which in 1901 suggested measures for the prevention of famine.

But the Government never tried seriously to understand the root causes of the famines. The most important fact that the Government ignored was the lack of industry and manufacture in India which forced eighty or ninety per cent. of the population to go for agriculture which could hardly support them. This point was

made clear by the Famine Commission of 1880 in its report.¹

As a result of adverse economic policy of the British towards the industry and manufacture in India and their ruin, the masses were forced to take up agriculture as the only means of support. The heavy land revenue resulted in swelling up of the coffers of the British Government and increasing the poverty of the people. The significant feature of the Government's policy was the "... rising export of food grains from starving India. The export of food grains, principally rice and wheat rose from £ 858,000 in 1849 to £ 3.6 million by 1858, £ 7.9 million by 1877, £ 9.3 million by 1901, and £ 19.3 million in 1914, or an increase twenty-four times over."²

Keeping in view the Government of India's economic policies, it can be clearly deduced from the ideas of Sayaji Rao in this direction that the people were poor due to their agricultural conditions. Therefore he emphasized on the need to develop industries and increase manufactures as a remedy.

In his speeches though he gave veiled allusions of his disapproval to the Government of India's policies, he dared not speak openly and in clear terms because his position as a ruler of an important state prevented him to do so. His basic thinking rests on the fact that he wanted to educate the masses in the first instance. With the increase in education, the people would learn the concept of self-help and take up various vocations instead of relying upon agriculture entirely.

Land Revenue Policy

In 1875, when Sir T. Madhav Rao took over the charge of the State, he was called upon to deal with numerous complicated problems in the State. The accounts of the State were in confusion. The arrears of land-revenue of former years stood at

2. Ibid., p. 386.
at the astounding figure of nearly Rs. 67 lakhs. The Dewan took partial remedial measures in every direction and endeavoured to normalise the affairs. In the matter of land revenue he tried to ascertain the fiscal pressure on each village keeping in view its fiscal capacities and granted immediate relief that did not jeopardise the interests of the Government. He adopted a course of summary reduction of the land assessment. The maximum rate of reduction was twenty-five per cent., and the whole reduction was estimated about twelve lakhs rupees. Besides this several petty taxes were either reduced or done away with.

In the matter of reforms, Sir I. Madhav Rao was inspired by the theories and the practice of the British Government, because he was quite familiar with it. In the sphere of land reforms he adopted the rytowari system of the Bombay Presidency. In India there were many kinds of land-tenure. In Bengal Lord Cornwallis had established the Permanent Settlement. In Oudh the land was held by great proprietors. There was 'zamindari' system elsewhere under which the Government looked comparatively to few persons or big holders for its revenue. In Madras Sir Thomas Munro had successfully introduced the rytowari system. It was also adopted in Bombay Presidency.

Under the rytowari system a regular field survey was conducted. The lands were registered in the names of individual farmers and a fair assessment of tax was made with due regard to soil, rainfall, prices and other factors. This settlement was not intended to be permanent but it was periodical and was revisable usually after thirty years. Under this system the people lived with undisturbed security and the Government had benefits of revising the assessments at fixed intervals.

The following table shows the ratio between revenue and gross produce region by region which was in the middle of the nineteenth century in India:

1. BSAR, 1876-76, p. 17.
It will be observed that the Government demand was excessive in the ryotwari areas.

Sir T. Madhav Rao introduced the ryotwari system in the State and organised the work. His achievement in the matter of land revenue can be viewed as under:

<table>
<thead>
<tr>
<th>Year</th>
<th>Government demands</th>
<th>Realisations</th>
<th>Outstanding balances</th>
<th>Total Receipts</th>
</tr>
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<tr>
<td>1877-78</td>
<td>Rs. 93,12,789</td>
<td>Rs. 81,79,814</td>
<td>Rs. 11,32,975</td>
<td>Rs. 1,20,12,211</td>
</tr>
<tr>
<td>1878-79</td>
<td>Rs. 94,29,001</td>
<td>Rs. 82,64,826</td>
<td>Rs. 11,64,175</td>
<td>Rs. 1,31,20,642</td>
</tr>
<tr>
<td>1879-80</td>
<td>Rs. 97,68,297</td>
<td>Rs. 91,34,967</td>
<td>Rs. 6,53,330</td>
<td>Rs. 1,39,91,445</td>
</tr>
<tr>
<td>1880-81</td>
<td>Rs. 97,09,905</td>
<td>Rs. 92,45,457</td>
<td>Rs. 4,64,438 (1)</td>
<td>Rs. 1,43,82,129</td>
</tr>
</tbody>
</table>

Note: The Government demands are met after deduction of remissions to the extent of Rs. 2,44,935 in 1877-78, Rs. 1,87,210 in 1878-79, Rs. 5,548 in 1879-80 and Rs. 11,663 in 1880-81.

Though Sir T. Madhav Rao's administration did much to improve the land administration of the State, more remained to be done. A scientific survey of the land, equitable settlement of rates, making rules and regulations and inquiry into different

2. Ibid., p.442. Cited. The rupees are in Baroda coins which were known as BabaShai rupees. During the period Sir T. Madhav Rao 100 BabaShai rupees exchangeable value with the British rupees varied from 112 to 120. In 1900, when the British currency was introduced 130 BabaShai coins were being considered equivalent to 100 British Indian rupees. (GBS, Vol.I, p.354 & Vol.II, p.439).
types of lands were to be tackled. After Sayaji Rao assumed full powers of the State, a regular Survey and Settlement Department for the whole State was organised in the year 1883. F.A.H. Elliot, Sayaji Rao's old tutor, was put in the charge of the Department. The system that was adopted for the State was in fact the Bombay System which was originally formulated in 1847.

According to the Bombay System, the Land Revenue assessment of a district was to be fixed by an examination of the revenue settlement of previous years and by enquiring into the past history. The capacity of the district was also to be determined. When the amount was settled, it was to be distributed among the different villages and fields comprised within the districts. The three important principles of settlements which were current in India were also adopted for the State: The principles were as under:

1. The Land Revenue demand of a taluka should be fixed after considering what it paid in the past and can pay in the future, without impairing the prosperity of the agriculture.

2. No enhancement should be made unless there had been a rise in prices, or other similar reasons.

3. No cultivator should be asked to pay more than one-half of the net produce of his field. By net produce of field meant the average produce of the field, minus the cost of cultivation which included the fair wages of the cultivator and his family labouring in the fields, and also a fair rate of interest on his agricultural stock.

The period of settlement was kept for fifteen years and a large number of special taxes on agriculturists were abolished as the new settlement was introduced. The Revision Settlement was made at the expiry of this period was for thirty years with some exceptions. The settlement in Mahuva taluka (Navsari Dist.) was for fifteen to sixty years, in Kodinar (Saurashtra) for thirteen years and in Amreli, Vaghodia (Baroda Dist.) and Patan (Mehsana Dist.) for twenty years.

After the Survey Settlement was carried out the principal tenure that prevailed in the State was the *raiyatwari* or survey assessment system. Under this tenure the revenue was assessed on each prevalent measure of land such as *bigha* and the State collected revenue directly from each cultivator in cash without the intervention of a third party.

The other noteworthy tenure that existed before the introduction of the assessment system was the *bhagbata* or collection in kind, according to a fixed share of the produce. The other system was that of *bighoti* i.e. cash rent.

The following table gives an idea of the proportion or variation in the per cent. of land revenue to the total revenue of the Baroda State during the seven decades beginning from 1881.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Receipts</th>
<th>Land Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>1881</td>
<td>143.82 (Baroda coin)</td>
<td>97.42 (Baroda coin)</td>
</tr>
<tr>
<td>1891</td>
<td>177.45</td>
<td>116.07</td>
</tr>
<tr>
<td>1901</td>
<td>136.61</td>
<td>87.69</td>
</tr>
<tr>
<td>1911</td>
<td>171.72</td>
<td>103.15</td>
</tr>
<tr>
<td>1921</td>
<td>208.55</td>
<td>111.25</td>
</tr>
<tr>
<td>1931</td>
<td>259.66</td>
<td>117.48</td>
</tr>
<tr>
<td>1941</td>
<td>252.45</td>
<td>95.07</td>
</tr>
</tbody>
</table>

The sizable reductions noticed in the last two decades were due to floods of 1927-28 and the adverse seasonal conditions during 1931-41 arising from the depression of 1929. In view of the depression caused by the fall in prices of agricultural produce, Sayaji Rao in an order issued on December 26, 1938, granted relief to agriculturists in the State varying from annas two to annas four in rupee in the land revenue assessment for five years.

Nevertheless, the general study of the receipts in land revenue in proportion to total receipts of the State offers that the former was very high in comparison to the latter and formed the biggest source of income.