CHAPTER VI

THE U.S. ASSISTANCE TO INDIAN AGRICULTURE.

(With special reference to Public Law 480)

(In this Chapter we would have a detailed discussion on American programmes of assistance to Indian agriculture, supply of food and other commodities to India. The Public Law 480 has a broad-based objective to accomplish. Different aspects of this law assistance programme will have separate treatment in different relevant Chapters. For, apart from agriculture, P.L. 480 funds are provided for many other Indian projects and welfare schemes. Here the P.L.480 will be treated from the point of view of its agricultural objectives.)

India's agricultural problems are numerous but not insoluble. Nearly 75% of total Indian population depends on agriculture; industry also depends largely on agriculture for the supply of raw materials and food. Moreover, it contributes to the national income of the country to the extent of 50%. India's export trade consists mainly of agricultural
products, though this tradition seems to have little changes in recent years. A considerable part of Government Revenues is derived from agriculture by way of land-revenue and Agricultural Income Tax. Agricultural development is therefore greatly linked with the country's war against poverty misery, desperation, illiteracy and all other socio-economic odds. Overall economic development, hence, depends largely on the development of agriculture. During the British era, this vital sector of the Indian economy remained petiably neglected and Independent India really has witnessed completely a lopsided and stagnant agriculture which required immediate operation for improvement.

The most remarkable technical draw backs of Indian agriculture are:

(a) traditional methods of farming
(b) low productivity due to ill health of farmers and animals, absence of inputs like improved seeds and fertilizer
(c) poor capital investment
(d) lack of scientific knowledge and research
(e) excessive population pressure on agriculture and
(f) foreign exchange difficulties.

Since independence, these draw-backs seem to aggrivate. Population tends to grow speedily and food production
fails to meet the increasing demand and the Government then felt the urgency of real and spectacular agricultural growth.

Indian agriculture during 1940s was quite of primitive type; but the country was almost self-sufficient in foodgrains. Separation of East Bengal, the granary of India was responsible for consequent crisis in foodgrains in the country after independence. The problem was aggravated by the gradual tendency of population growth. More than 80% of the country's population lived in rural areas and were mostly dependent on agriculture. Preponderance of agriculture on Indian life, therefore, cannot be overemphasised. We already have referred to the underdevelopment of the overall economy of the country. The lopsided agriculture was primarily responsible for India's economic stagnancy. The following statistical information reveals the poor agricultural growth of the country.

(Please turn over for the statistical Table)
TABLE 2
Comparison of Food Crop Yields - 1949-50.

<table>
<thead>
<tr>
<th>Crop</th>
<th>Country</th>
<th>P.C. of World Production</th>
<th>Yield per capita</th>
<th>Yield per acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rice</td>
<td>BURMA</td>
<td>3.6</td>
<td>606 Lbs.</td>
<td>1216 Lbs.</td>
</tr>
<tr>
<td></td>
<td>CHINA</td>
<td>31.8</td>
<td>-</td>
<td>2249 &quot;</td>
</tr>
<tr>
<td></td>
<td>INDIA</td>
<td>19.6</td>
<td>185 &quot;</td>
<td>1042 &quot;</td>
</tr>
<tr>
<td></td>
<td>JAPAN</td>
<td>7.9</td>
<td>313 &quot;</td>
<td>3821 &quot;</td>
</tr>
<tr>
<td>Wheat</td>
<td>AUSTRALIA</td>
<td>3.6</td>
<td>1484 &quot;</td>
<td>909 &quot;</td>
</tr>
<tr>
<td></td>
<td>CANADA</td>
<td>7.5</td>
<td>1832 &quot;</td>
<td>979 &quot;</td>
</tr>
<tr>
<td></td>
<td>INDIA</td>
<td>2.8</td>
<td>3 &quot;</td>
<td>521 &quot;</td>
</tr>
<tr>
<td></td>
<td>U.S.A.</td>
<td>24.9</td>
<td>528 &quot;</td>
<td>1079 &quot;</td>
</tr>
<tr>
<td>Raw Sugar (Cane &amp; Beets)</td>
<td>U.S.A.</td>
<td>5.2</td>
<td>25 &quot;</td>
<td>3701 &quot;</td>
</tr>
<tr>
<td></td>
<td>CUBA</td>
<td>20.0</td>
<td>2622 &quot;</td>
<td>4567 &quot;</td>
</tr>
<tr>
<td></td>
<td>INDIA</td>
<td>5.7</td>
<td>23 &quot;</td>
<td>3063 &quot;</td>
</tr>
</tbody>
</table>

(Source: India in World Economy, Government of India-1960)

Such an underdeveloped and stagnant agriculture reflects on:

(a) poverty, illiteracy, poor health and ignorance
of the peasants or the rural masses,

(b) poor national consumption,

(c) raw-material crisis in industry, and

(d) growing dependence on foreign supplies of food
and raw materials.
All efforts for agricultural development in any underdeveloped country can be grouped under two broad heads:

(a) measures that contribute toward an increase in the yield per acre and
(b) measures that help bring new land under cultivation.

The principal technical programmes for increasing agricultural production, around which intensive work is to be organised are:

(a) irrigation,
(b) soil conservation, dry farming and land reclamation,
(c) supply of fertilizers, manures and pesticides,
(d) seed multiplication and distribution of improved variety of seeds,
(e) plant protection and
(f) better and improved farming implements and adoption of scientific agricultural practices.

Right from the First Five Year Plan, the Government of India has been trying to implement such approaches for a speedy agricultural growth. But India was never experienced in progressive agriculture. Scientific agriculture needs experience, technical knowledge, educational
research and more importantly considerable amount of finance.

The Government, considering India's comparatively insignificant world position (as under Table 2 above) and the eminent role of agriculture in the country's economy, granted first priority on agriculture in the First Five Year Plan. No less stress has been laid on agriculture in each of the successive Five Year Plans. The following table shows plan-estimates on agriculture in the Five Year Plans:

<table>
<thead>
<tr>
<th>Plans</th>
<th>Total Outlay</th>
<th>Agriculture Programme</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Five Year Plan</td>
<td>1960</td>
<td>601</td>
</tr>
<tr>
<td>(1961-66)</td>
<td></td>
<td>31</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rs.291 Crs. for Gen. Agril. &amp; C.D.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rs.310 Crs. for irrigation, flood control etc.</td>
</tr>
<tr>
<td>2nd Five Year Plan</td>
<td>4800</td>
<td>950</td>
</tr>
<tr>
<td>(1957-61)</td>
<td></td>
<td>22</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rs.550 Crs. for Gen. Agril. &amp; C.D. programmes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rs.420 Crs. for irrigation &amp; flood control etc.</td>
</tr>
<tr>
<td>3rd Five Year Plan</td>
<td>10400</td>
<td>2110</td>
</tr>
<tr>
<td>(1962-66)</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rs.1460 Crs. for Gen. Agril. &amp; C.D. programmes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rs.650 Crs. for major &amp; minor irrigation &amp; flood control etc.</td>
</tr>
<tr>
<td>4th Five Year Plan</td>
<td>21000/22000</td>
<td>4100</td>
</tr>
<tr>
<td>(1969-73)</td>
<td></td>
<td>13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rs.3100 Crs. for Gen. Agril. &amp; C.D.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rs.1000 Crs. for irrigation etc.</td>
</tr>
</tbody>
</table>

(Source-Draft Indian Five Year Plans).

FOOD GRAINS

OIL SEEDS

SUGARCANE

COTTON

JUTE

The Indices of agricultural production (general) show an upward trend. The index was 95.6 against the Index of 100 in 1949-50. It rose to 116.8 in 1955-56 at the end of the First Five Year Plan, to 142.2 in 1960-61 and to 157.6 in 1964-65. Between 1950-51 and 1964-65, the production of all the agricultural commodities taken together, went up to 57%, foodgrains by 49%, oilseeds by 63%, sugarcane and cotton by 100%, and that of jute by 84%. The yields per acre of grains also increased. But the slow growth rate was remarkably a problem for the country, for population tended to grow at an annual rate of 2.2%. Inspite of immense efforts to increase production to attain self-sufficiency, the country has to import to supplement the domestic need.

The following table shows India's agricultural production (major crops) since 1950-51:

<table>
<thead>
<tr>
<th>Crops</th>
<th>1950-51</th>
<th>1955-56</th>
<th>1960-61</th>
<th>1964-65</th>
<th>Rate of Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foodgrains</td>
<td>52.2</td>
<td>65.8</td>
<td>76.0</td>
<td>88.4</td>
<td>149.1</td>
</tr>
<tr>
<td>Oil Seeds</td>
<td>5.1</td>
<td>5.6</td>
<td>7.1</td>
<td>8.6</td>
<td>154.4</td>
</tr>
<tr>
<td>Sugarcane</td>
<td>5.6</td>
<td>6.0</td>
<td>8.0</td>
<td>12.3</td>
<td>202.1</td>
</tr>
<tr>
<td>Cotton</td>
<td>29.0</td>
<td>40.0</td>
<td>51.0</td>
<td>54.0</td>
<td>206.0</td>
</tr>
<tr>
<td>Jute</td>
<td>33.0</td>
<td>42.0</td>
<td>40.0</td>
<td>60.0</td>
<td>184.2</td>
</tr>
</tbody>
</table>

Source: Five Year Plan Evaluation Reports.
From the declining rate of investment in the Five Year Plans in Agriculture as reflected from Table- 3, however, it does not mean that agriculture was progressively relegated to the background in every succeeding plans. On the contrary plan-target went on almost doubling every time. Table- 4 shows the gradual progress in the growth of agricultural production. Here the remark made by the 'Pearson Commission' in its report is worth mentioning:

"Agriculture had not been neglected during the first three plan periods- it received about 20% of public expenditure ..... Efforts were made in extension, land consolidation, land reform, irrigation, and the provision of credit; but Indian planners assumed, along with most foreign experts, that peasants usually illiterate and set in their ways, would not respond to price incentives but only to direct educational efforts. Consequently, community development and extension were emphasized in domestic programmes and in aid priorities. Although, these programmes had little immediate impact on production, they doubtless laid the basis for later ready acceptance of the new technology. Provision of such inputs on fertilizer and pesticides, as well as price incentives, were relatively neglected. In the thirteen years between 1951-52 and 1964-65, for example, the availability of fertilizer increased by only 589,000 nutrient tons; in the two years after the policy changes it increased by 739,000 nutrient tons."
In view of the urgency of the rapid solution of the agricultural problems of the country, American co-operation in the country's plans and programmes for a rapid growth and structural rejuvenation of agriculture in particular is of considerable significance. "American aid to Indian agriculture revolves around the twin approach of making cultivated land yield double or treble and of bringing all available cultivable land under plough. These two approaches could transform Indian agriculture from a losing, stagnant, pathetic, traditional way of rural life in to a commercial, economic and successful proposition". U.S. Assistance, therefore, has touched almost every major area of rural reconstruction from soil conservation, irrigation and fertilizer to education and sanitation.

The U.S. aid to India accounts for 61% for agricultural projects in India for bringing about a qualitative and structural growth of the sector. India obtains U.S. foreign exchange assistance for agricultural projects and this exceeds Rs. 525 crores. Also she obtains nearly Rs. 800 crores from P.L.480 sales proceeds in India for different projects pertaining to agriculture. Some U.S. agricultural experts are working in India under the request of Government of India in making the country's current green revolution a success. We have recorded earlier in the Chapter some structural improvements (vide tables) of agriculture through the
Five Year Plans since 1960-61 and American contribution towards such improvement of this vital sector of the Indian economy cannot be exaggerated.

**Evolution of United States Food Policy Towards India.**

It is crystal clear that the Government of the United States of America adopted an apathetic and unsympathetic attitude towards Indian economic problems during the British rule. Government policy for agricultural trade development with and assistance and food supplies to India is found to evolve only in 1951 as a result of the passing of the historical "The Indian Emergency Assistance Act of 1951". Before that American interest in India's agricultural development and food problem was sporadic and emanated from certain private groups. This vast country with huge food surplus used to spare the same for Belgium, Russia, Germany and other European countries in times of their crises, because these countries were regarded vital for America in her foreign affairs. India was, however, considered to be Britain's domain.

Food has always been playing a vital role in the formulation of United States foreign policy, even after the World War II. Food even is the most important element in the process of the growth of Indo-US economic relations. While discussing about American assistance to India's agri-
cultural progress, the evolution of American food-policy towards India comes first in such discussion.

Early American attitudes towards food problems in India

There occurred devastating famines in India in the years 1897, 1899, 1943 and 1946. In the First Indian famine of 1897, the British Government failed to organise relief to cope with the acute shortage. The American Press, other voluntary organisations and missionary groups took the lead in arousing American public opinion to India’s needs. Such American interests were not motivated by political considerations. The missionaries were hopeful that generous contributions towards suffering humanity would help their evangelical efforts. The "Christian Herald" collected 500,000 dollars. The Congress provided for securing vessels to transport gifts in kind to India. This measure was of great significance in so far as the growth of India-American relation was concerned. This was an effort to co-ordinate private channels to help India with the Government effort.

India faced another famine in 1899. Then the initiative came from the Administration to extend relief to India. The Government provided transport for the shipment of corn and seeds to India, contributed by the private organisations and missionary groups. India received 2,00,000 bushels of corn and substantial quantities of seeds in early
months of the year, 1900. The Christian Herald again collected 100,000 dollars and cabled the same to India as cash relief.

The Indian famine of 1943 was responsible for the death of half a million of people as recorded by the Famine Commission. Due to the war, India's imports of rice from Burma were stopped and there was increased need for food for the British and American troops stationed in India. The Government was rather busy planning the strategy of war, and hence food problem in India did not get a timely and planned consideration. The result was the acute food shortage claiming endless lives. To utter dismay, the United States Government and the private groups did not take substantial interest during this famine period. On the other hand, it was interesting that President F.D. Roosevelt promised to send 2 million tons of wheat, 15,000 tons of meat, 20,000 tons of canned meat, 12000 tons of lard and 10,000 tons of oil to Soviet Russia. Probably due to the war, the Indian famine conditions did not receive adequate publicity in the United States. However, the India League of American, the India Famine Relief Committee of the American Friends Service Committee raised some fund to send to India. Under the Chairmanship of the novelist, Pearl S. Buck, the Emergency Committee to aid India left no stone unturned to arouse sympathetic American public opinion to help India. India received a meagre American relief of 275,000 dollars against 16,273,393
dollars received by Russia. Such declining American interest towards India's food problem was due to British domination in India and they did not like to offer direct help to British India, which would have annoyed Britain. Even from April 1944 to March 1945 the U.S.A. did not export a single ton of grain to India.

India experienced another famine in 1945. There was then a significant change in the attitude of the American Administration towards India's problems. The Labour Government in Britain was more favourably inclined toward India and regarded India as Britain's responsibility and could not tolerate any interference or help for India from other countries. But the Truman Administration possibly could not overlook the needs of millions of suffering Indians.

Famine conditions prevailed in other parts of the world including some of the British Dominion. President Truman formed the Famine Emergency Committee, with Herbert Hoover, a former President, as Chairman. Hoover was to visit several famine-striken areas of the world excepting India, with a view to reporting the American Government about the food situation in these areas. Due to pressure from private American groups, Hoover's itinerary at last included India also. Hoover, therefore, directly came to India from Cairo. Hoover's visit to India was historically significant, because a former American President paid a visit to India and took
keen interest in its problems. This was of course, a step forward in the process of formulating Indo-US relations.

Hoover's visit to India was fruitful. The U.S. Government allocated 500,000 tons of foodgrains to India. "This was the first time that foodgrains figured as the most important item in the United States trade with India, and it was also the first example of the United States Government's interest in the problems of India". Even 'food' became the most significant factor in Indo-US relations since India's independence.

The India Emergency Assistance Act of 1951.

We cannot but refer to the above historical state of affairs in respect of Indo-US relations up to the World War II period. Immediately after our independence in 1947 there had been no such indication that the United States Government would come forward to form strong links with India. However, they were aware of the revolution against colonialism in Asia and Africa, but had made no deep appraisal of the significance of India's role. American policy makers became alive to the urgency of India's problems, when communist regime was established in China in 1949. Indian leadership strongly felt the urgency of United States co-operation in solving Indian food problem and such other economic problems. Indian Prime Minister, Jawaharlal Nehru paid a visit to the U.S.A. in October, 1949 and
appealed to the Government and the people of the U.S.A. to extend economic assistance in the form of surplus agricultural commodities and by way of technical personnel. Mr. Nehru expressed his hope to increase trade between the two countries and to establish good relationship. (Ref. Ch. V).

We have already discussed in the Chapter V about the elements causing strong misunderstandings and misgivings in the U.S.A. about India and recorded how they unfortunately hindered the growth of relationship between these two countries. India requested the U.S. Government in 1949-50 to ship 6,000,000 tons of wheat of which India would procure 4,000,000 tons through usual trade channels and for the remaining 2,000,000 tons she made a request to the U.S. Government for a long term loan of 190 million dollars on easy terms for the purchase of this amount of wheat in the U.S.A. But India obtained from the United States on special request a grant of 4.5 million dollars (mentioned earlier) to purchase U.S. agricultural commodities (mainly wheat) to ease a food shortage in August, 1950. This grant was allocated for India from funds available through the China Area Aid Act, 1950. Though the situation was quite unfavourable, Indian appeal for a long term loan had received due consideration. Despite President Truman's dissatisfaction with India's policy of non-alignment, and specially for the Indian role in the Korean issue the Indian request for an emergency food-loan received a sympathetic response from
the President. The President and his Government had been strongly aware of the strategic importance of India, in South East Asia. The President transmitted a recommendation to the Congress on 12 February 1951, in the following words:

"Like any nation which has just achieved independence, India is confronted with great difficulties - difficulties which have been aggravated by the crisis in Asia caused by the aggressive forces of Communist imperialism. Then present food crisis, if permitted to continue, would magnify these difficulties and threaten the stability of India. It is important for the free world that the democratic institutions which are emerging in India be maintained and strengthened. Its continued stability is essential for the future of free institutions in Asia". In the course of the Congressional debates it has been popularly accepted that 'human needs override political differences' and "foreign policy differences should not come in the way of relief assistance". After four months of heated discussion in the Congress, the Act to extend emergency assistance to India was passed. The President signed the "India Emergency Assistance Act 1951" on 15 June 1951.

Next was the controversy over conditions, whether there should be any political or economic conditions attached to the Bill, was a subject matter of heated debate. Some members wanted attaching conditions while others were strongly opposed to it. Senator Lehman stated:
"I do not think that we should insist upon any political condition. I do not think that we should insist upon any quid-pro-quo in terms of raw material of any kind". He reminded the Government that the policies of America were truly based on interest in the welfare and well-being of peoples regardless of race or absolute political conformity. Representative Ribb Coff also disapproved of any attempt to attach conditions. On the other hand men like Representative Cox demanded that economic conditions should be attached to the 'India Wheat Loan'. He stated:

"India needs grain immediately, we have the grain. We need strategic materials manganese, mica, burlap, monazite sands and so forth. We should not make the Government of India a gift it has asked for".

In such contexts, some members introduced amendment in the Senate demanding that the repayment terms should include the transfer to the United States by India of strategic materials which are in short supply in this country. The Mundt-Amendment deserves attention, because of its significance in terms of its long term effects on Indo-American relations. It provided:

"Under the loan provisions of this Bill, the Government of India will pay interest for the loan of this money. That the interest payments paid by India on its loan with which to buy the needed grains would be remitted back to
the Indian people in terms of a long-range aid programme, quite apart from the grain distribution so needed at this moment."

As a result, Indian export of manganese, mica and so on to the U.S.A. considerably increased. In 1949-50 the U.S.A. imported 37% of her total manganese imports only from India. Dr. M.S. Venkataramani in an article titled "Manganese as a Factor in India-American Relations" in Indian Quarterly (April-June 1968) pointed out:

"The timelines and extent of India's contribution of manganese and the co-operation that the Government of India extended to the efforts of the United States to obtain increased supplies, probably made an impact on knowledgeable circles in the executive and legislative branches of the American Government. This factor along with other security considerations as well as genuine humanitarian sentiments led them in 1951 to support vigorously programmes of assistance to enable India to tide over her food shortage."

That India suffered from acute foreign exchange deficit during the post independence period was well known even to American congressmen and other leaders. Secretary of States Dean Acheson reported in the House Committee on Foreign Affairs that India's sterling reserves had been reduced by one-half, due to the transfer of shares in foreign exchange balances to Pakistan and due to heavy with-
drawals for purposes of imports".

Because of such strong supports and appreciations from a number of eminent American personalities, the anti-Indian criticisms ultimately proved futile and formal relationship between these two great democracies of the world could be evolved; and the passage of the 'India Emergency Assistance Act, 1951 can be regarded as the landmark in the relations of the United States of America with the Republic of India.

There is no denying the fact that some Indian dignitaries too opposed the idea of loan-agreement with the U.S. Government. A section of the American public, press and congressmen expressed strong resentment over the issue. On the other hand, considerable amount of support had been found from the press and the general public. Finally, it appeared that there had been wide enthusiasm in the U.S.A. towards the establishment of a permanent and cordial relationship between these two countries.

We have already recorded American food-reliefs to India before and after India's independence. The first two U.S. Official food-aid to India were one of 4.5 million dollars in 1950 (under the provisions of the China Area-Aid Act, 1950) and the second being of 189.7 million dollars in 1951 under the 'India Emergency Food Assistance Act 1951'. Subsequent food aids in the fiscal years of 1955,
1956 and 1957 amounting to 67.8 million dollars have been made under the Mutual Security Act (Section 402 under Public Law 665). Under these agreements India obtained American supplies of 18,000 tons of cotton along with wheat. The most epochmaking American policy for providing food and other agricultural assistance to India is laid down under the Public Law 480. India signed the first agreement with the U.S. Government under the Public Law 480 in August, 1956.

III

The U.S. Assistance Programme Towards India Under Public Law 480

The Genesis of the Agreement:

The Agricultural Trade Development and Assistance Act of 1954 (also popularly known as Public Law 480 and referred to hereafter as such) was originally conceived from the standpoint of foreign economic relations. Its objectives were:

1. To make maximum efficient use of the surplus agricultural commodities in furtherance of the foreign policy of the United States.

2. To expand international trade between the U.S.A. and friendly countries.

3. To facilitate the convertibility of currency.

4. To stimulate and expand foreign trade in agricultural commodities.

5. To encourage economic development.
Title I of the P.L. 480 provides for sale of surplus agricultural commodities for foreign currencies and the utilization of such currencies in the recipient countries for economic development. Title II and III provide with grants and donations of food and other relief materials to meet crises in the recipient countries. (Title II and III are non-commercial welfare schemes and be discussed in Chapter VIII).

It is here necessary to understand the Indian background of the first Agreement entered into in August 1956. The food situation in India since the middle of the Second World War was marked by severe shortages. This led to imposition of strict measures of price control and rationing and dependence on large scale imports of food grains. The period 1952 to 1955 was marked by gradual relaxation of controls because of the successful production of food grains during the First Five Year Plan period. By the end of 1954 rationing had been withdrawn; residual vestiges of control, such as, restrictions on movement of foodgrains, were completely removed in March 1955. It was possible to withdraw all restrictive or regulatory measures in 1955 because of successive good crops of cereals in the preceding years. Index of production of foodgrains (base 1949-50) had risen from 95.6 in 1950-51 to 119.1 in 1953-54. Rightly speaking, 1953-54 was a year of record production for the post-independence period. The imports consequently dwindled. This enabled the Government to explore the possibilities of
building up reserve stocks to meet exigencies in future.

The need for reserve stocks of foodgrains was twofold:

(1) India's food production was subject to severe seasonal fluctuations. They were bound to cause acute price rise and economic distress. It was, therefore, necessary to have enough stocks with the Government to meet these periodic shortages, such stocks had to be built up mainly by imports, because the production during the years of control was inadequate to enable any carry over of surplus grains. The level of production even in favourable years was not considered high enough to contribute sizably to the building up of stocks for meeting requirements of lean years.

(2) India had launched a programme of planned economic development. This was sure to generate inflationary pressures that might be felt more in the foodgrains sector than elsewhere. Therefore, fighting the inflationary pressures under development planning until such time when domestic production caught up with the demands generated through developmental expenditure, was a task that Government sought to fulfill by means of reserve stocks to be built out of imported foodgrains.

These considerations were uppermost in the minds
of the Government of India and the Planning Commission and
the Government entered into negotiations with the Govern-
ment of the U.S.A. in May 1955 for imports of agricultural
commodities, mainly foodgrains, under Public Law 480. The
Planning Commission in the 'Second Five Year Plan' observed;

"Agricultural production may fall short of the
mark for reasons beyond human control. Other bottlenecks
may emerge. There is always a certain lag between the crea-
tion of new incomes and the increase in available supplies
on which they can be spent .... The maintenance by Govern-
ment of an adequate foodgrains reserve at all times so as
to be able to meet an adverse situation effectively and
promptly is a necessary safeguard against the inflationary
pressures implicit in a big developmental programme" (Pp39-40).

The long-drawn out negotiations between the two
Governments ended in an agreement in August, 1956, by which
time the immediate need for such imports and stocks had be-
gun to be felt. Since then these imports came to play a cen-
tral role in the food policy of the Government of India.

Size Of The Public Law 480 Assistance:

The agreements under the P.L.480 provided for
import of a variety of agricultural commodities, the most
important among them being foodgrains, mainly wheat. The
subsequent agreements provided for imports of other Ameri-
can goods like cotton, dry-milk, milk powder, tinned fruit
etc.
Earlier agreements upto December 1962 (8 agreements) provided for imports of mainly foodgrains worth Rs.11,560 million (2428.57 million dollars). Upto April 1, 1971, there have been as many as nine additional agreements and thirty five supplemental agreements since August, 1956 and the value of commodity received under all these agreements amounts to Rs.35902.50 million (4787.0 million dollars, @ Rs.7.50 = 1 dollar).

Taken together, the P.L. 480 provides India for a total supply of the following materials:

<table>
<thead>
<tr>
<th>Material</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat</td>
<td>52.2 million tons</td>
</tr>
<tr>
<td>Sorghum and Maize</td>
<td>5.5 &quot; &quot;</td>
</tr>
<tr>
<td>Rice</td>
<td>1.8 &quot; &quot;</td>
</tr>
<tr>
<td>Vegetable oil</td>
<td>0.5 &quot; &quot;</td>
</tr>
<tr>
<td>Non-fat dry Milk</td>
<td>24,900 Tons.</td>
</tr>
<tr>
<td>Dry milk</td>
<td>13,000 &quot;</td>
</tr>
<tr>
<td>Milk Powder</td>
<td>230 &quot;</td>
</tr>
<tr>
<td>Tinned fruit</td>
<td>400 &quot;</td>
</tr>
<tr>
<td>Cheese</td>
<td>80 &quot;</td>
</tr>
<tr>
<td>Cotton</td>
<td>4 Million bales</td>
</tr>
<tr>
<td>Tallow</td>
<td>170,000 Tons</td>
</tr>
<tr>
<td>Tobacco</td>
<td>7,400 &quot;</td>
</tr>
</tbody>
</table>

(Source: FACTSHEET -28-U.S.I.S.)
The P.L. 480 loan is repayable in rupees. Nearly 90% of such imports was only foodgrains - chiefly wheat; cotton accounted for 8% only, and other items were relatively of minor importance. Between 1956-62 imports of wheat under P.L. 480 Title I amounted to nearly 80% of India's total wheat imports. Imports of rice under P.L. 480 which were very significant since 1960 amounted to 45% of total rice imports and cotton imports amounted to 47% of total cotton imports.

In terms of India's production of these commodities, the two important imports were wheat and cotton. Since 1956 annual average wheat imports under P.L. 480 were equal to 28% of India's production, and cotton figures over 7% while rice was only equal to about half of one percent of India's production. During the crisis of mid-sixties imports of wheat and rice appear to have remarkably increased. The unprecedented crop failure during 1965-67 and its consequent chronic food shortage were compensated by imports and relief supplies from many friendly countries including the U.S.A. The U.S.A. allotted a considerable volume of wheat under P.L. 480 for India enabling the Government of India to overcome the untoward situation. However, due to good harvest during the late sixties (1968-70) India continued to reduce her imports and since the latest agreement on April, 1971 for imports of agricultural commodities including foodgrains,
no further agreement appears to have been entered into between India and the U.S.A. According to Government estimates, India would reach the stage of self-sufficiency in respect of foodgrains by the end of the Fourth Five Year Plan and therefore no new import-agreement be henceforward necessary. Revolutionary agricultural production programme has been initiated since 1968-69 and a 7% growth rate per annum is anticipated.

Public Law 480 Grants And Loans To Indian Agricultural Programmes (From PL 480 Sales Proceeds).

The imports under P.L.480 have continued since 1956 through the successive Five Year Plans. They have made considerable additional resources available to India for investment in the economic development of the country. The P.L. 480 agreements state the total assistance in terms of dollar to be converted into the individual commodities at ruling market prices at the time of purchase. India purchases the agreed commodities with such financial aid in the U.S.A. and as soon as they are shipped to India, she makes the payments in rupees for them to the American Embassy in India. The agreements provide for the use of such counterpart rupee funds. The usual norms in which these funds are used are as follows:
(a) 80% of the total rupee fund were to be given to the Government of India as loans or grants for expenditure on agreed projects of economic development.

(b) 13% were to be set aside for the U.S. Embassy expenditure in India.

(c) Another 7% were to be used for giving assistance to private American enterprises in India. (According to Cooley Amendment of the P.L. 480, 25% of such funds be set aside for private enterprises in India).

Thus 87% of the P.L. 480 rupee funds were to be used for development expenditure in India, the bulk of it in the public sector. India has utilised a greater percentage of such funds in the agricultural developmental programmes including agricultural education, research, training, fertilizer production irrigation and multi-purpose projects.*

Now we can arrive at the following conclusions that:

(a) India imports necessary foodgrains and other commodities from the U.S.A. under P.L. 480 grants or loans.

*The estimated P.L. 480 rupee deposits will amount to Rs. 2660 Crores, which is less than the rupee equivalent of 4787.0 million dollars. P.L. 480 Fund financed projects are recorded in Appendix.
(b) The counterpart funds created out of the sales proceeds of these commodities are utilised in the forms of loans or grants for the economic development of the country. Allotment of such aid (loan or grant) for specific project depends on the negotiations entered into between the two Governments.

Here the suggestions made by the Ford Foundation Team of British and American experts who visited India during January to April, 1956, can be stated. The Team very carefully observed the agricultural and problems of rural India. The Team suggested some steps to be taken under immediate consideration for the purpose of the country's overall agricultural development. The suggestions may be summerised as below:

(1) A good portion of the Public Law 480 funds available with the Government of India should be utilised for the most effective use of abandoned rural unemployed and under-employed labour resources for the production of foodgrains. Some public work programmes as bunding, terracing, surface drainage, minor irrigation, tanks, wells etc. should be taken which would promote production.

(2) Resources should be allocated on priority basis to co-ordinate irrigation, drainage and soil management programmes, and to enforce policy decisions giving priority to food production.
From analysis of the Indo-US economic relations throughout the last decades, we have marked that the Government of India has done its best to utilize foreign resources in the form of grants or loan including those of the U.S.A. in the following strategic approaches.

1. Growing more food to attain self-sufficiency.
2. To make agriculture a scientific and commercial proposition.
3. To remove all bottlenecks—psycho-social, economic and technical—in view of bringing about sustained growth.
4. To import raw materials and other necessary inputs and to import technical know-how.

The overall economic impact of P.L. 480 scheme on the Indian economy as a whole is a subject of critical study and the same has been taken under consideration in a subsequent chapter in this Thesis.

(IV)

United States Technical and Financial Assistance Towards Indian Agriculture.

We have found certain examples of American interests towards Indian rural and agricultural re-construction and development even during the late forties. Albert Meyer, a tireless and imaginative New York city planner became a prime mover of the pilot rural development project in
Etawah district of Uttar Pradesh in late forties. Douglas Ensmlnger, a Ford Foundation resident in India since 1951, Chester Bowels, Ambassador in India (1951-63) cart Taylor an American sociologist and American Church Missions helped India in the shaping of her rural plans including community development programmes. For formal studies, we are to proceed from 1951, when the United States Government adopted official policy to assist India in her developmental programmes under the Five Year Plans. During the 1950s, the U.S. Technical Co-operation Mission was the responsible Agency in India which co-operated with and assisted the Government of India in the execution and effective implementation of the programmes. And since 1961-62 the USAID (other agencies being merged with it) has been working as a co-ordinating agency between U.S.A. and India.

The Technical Co-operation Mission in India carried out development projects in co-operation with Government of India as agreed upon under the terms of the Indo-US Technical Co-operation Agreement, 1952. Since then these two countries came closer and closer and the relationship has been transformed into equal partnership for mutual progress. Many Indians acquired technical knowledge, skills and organisational experience in both India and the United States. The Government of India contributes toward rupee costs involved in the projects, such as, the cost of local construction, domestic transport, salaries to American
personnel in India and living expenses of Indians sent abroad for training and research. The U.S. Government has contributed experts in training, demonstration or advisory capacities for specific technical and economic projects in India. The U.S.A. has also provided training facilities for Indians in that country or in any other country of the world.

Under the Indo-US Technical Co-operation Agreement, the U.S. Government obligated to India a sum of $17,307,000 dollars for India's agricultural and natural resources development during 1952-53.

Indo-US joint action towards the agricultural problems of India first touched fertilizer production followed by soil testing, locust control, irrigation, seed-multiplication and so forth. India's yield per acre of cultivated land was very low. In relation to that of China and Japan, it is expressed by the ratio 1: 2: 3: . Therefore, fertilizer supplies and production became the most urgent aspect of early Indo-US co-operation for India's agricultural development. Hereunder, a discussion has been made under certain heads, about the Indian development programmes under the United States assistance and collaboration. (Project-wise statistical informations are given in Appendix).
Indian Development Programmes Under United States Co-Operation.

**THE NEW SEEDS:**

The critical element of the new strategy has been high-yielding varieties of cereals: wheat, rice, maize, bajra, and jowar. The dwarf wheat strains now in widespread use in North India were originally developed in Mexico under a programme assisted by the Rockefeller Foundation. The dwarf rice strains, introduced later, were developed at the International Rice Research Institute, Manila, which has been established with the help of the Ford and the Rockefeller Foundations. Hybrid varieties of maize, bajra and jowar, which have met with the enthusiastic response of farmers from the Punjab to Kerala, were developed in India by Indian scientists, with some assistance provided by American scientists and institutions. Both the wheat and rice varieties have been adapted by Indian scientists to suit conditions in this country, and new, even more highly productive varieties have been evolved by them through the crossing of local and foreign strains.

**RICE RESEARCH IMPROVEMENT:**

Rice is the most important foodgrain grown in India. However, per-acre yields are among the lowest in the world. The chronic rice shortage has speeded the introduction of high-yielding dwarf varieties. Although these varieties
have amply demonstrated their high-yielding capability, disease-susceptibility under Indian conditions has been a major factor limiting their wide introduction and acceptance. Consequently, in an attempt to evolve certain high-yielding, disease-resistant varieties under Indian conditions, the Government of India requested USAID assistance to the All India Coordinated Rice Improvement Project.

Under contract with the International Rice Research Institute, USAID has been providing technical assistance since 1967. Four rice scientists have been working at the project headquarters at Rajendranagar, Hyderabad, since early 1968, and Indian rice scientists are being sent to the Philippines for advanced training.

**AGRICULTURAL PRODUCTION TEAMS:**

The introduction of new plant varieties gives rise to several problems. The high-yielding cereals produce large crops, but they require new cultural practices timely application of water in required quantities, and increased fertilization. Changes in production patterns and in harvesting and marketing techniques are also called for. To help the farmer produce the new crops more effectively, research and extension services in India are being brought closer to each other. At the request of the Government of India, USAID has arranged for teams of American experts
to serve in seven States: Andhra Pradesh, Bihar, Gujarat, Maharashtra, Mysore, Orissa, and Tamil Nadu. The teams, which normally consist of half-a-dozen specialists, have helped Indian scientists and extension workers in identifying and solving problems encountered by farmers.

Other extension programmes under the United States co-operation and assistance are also stated here. The United States have provided technicians, tractors and other equipments for the Central Tractor Organisation which has operated on a 200-acre farm at Budni in Madhya Pradesh, and for the Tarai State Farm (attached to the U.P. Agricultural University). Also the United States has helped India develop scientific storing systems in stead of traditional Indian systems of storing. Two modern elevators are so far installed under the Indo-US technical co-operation schemes - one in Hapur (the U.P.) and the other in Calcutta. Two pre-fabricated metal buildings are also on the way of completion - one near Madras and the other near Cochin.

Other worthing development programmes are:

**Fertilizers:**

During the past five years the amount of fertilizers used by Indian farmers has gone up (in terms of nutrients)
from 653,000 tons to 2,043,000 tons. This is largely because the new high-yielding varieties respond extremely well to fertilizers, and farmers thus find fertilizer application more profitable than in the past. Indigenous varieties of wheat and rice give an average yield increase of ten pounds of grain per pound of nitrogen. The new varieties yield as much as 25 lbs. More important, they are capable of profitably using up to four times as much fertilizers per hectare as can indigenous varieties.

**Fertilizer Production**

The U.S. aid programme has assisted the establishment of three large fertilizer factories, at Visakhapatnam, Trombay, and Madras.

The Rs.50 crore plant at Visakhapatnam is operated by the Coromandel Fertilizers Ltd., a joint Indian-American enterprise. The plant is currently delivering 800 tons of finished fertilizer a day, saving Rs.16 crores a year in foreign exchange. The U.S. Export-Import Bank has extended a foreign-exchange loan of 27 million dollars (Rs.20.25 crores) to Coromandel, which has also received a loan of Rs.12.29 crores from the sale proceeds of P.L-480 commodities.

The Fertilizer Corporation of India, a public sector enterprise, operates the Trombay plant, which presently
has an annual capacity of 135,000 tons of fertilizer nutrients. The plant has been largely financed by U.S. loans.

Another large fertilizer factory, under construction in Madras, is expected to go into operation. The Government of India is building the plant in partnership with a private U.S. firm (American International Oil Co.). USAID has helped in the financing of this project by insuring loans extended to it by American banks and pension funds. The factory has an annual capacity of 271,000 tons of fertilizer nutrients.

Construction work has already started on a new plant in Goa and is expected to commence shortly on a two-unit fertilizer complex at Kandla and Kalol. The United States is providing assistance to both these projects.

The Goa fertilizer plant, organized by U.S. and Indian private enterprise, with an annual capacity of 156,000 tons of nitrogen and 45,000 tons of phosphate, will receive the backing of USAID under loan and guarantee agreements. The 70 million dollar (Rs.52.50 crore) project, undertaken by Zuari Agro-Chemicals Ltd.- a joint venture of the United States Steel Corporation and an Indian Industrial firm-will be financed principally by the U.S. Steel and a group of U.S. institutional lenders, as well as USAID; the
the International Finance Corporation, an affiliate of the World Bank; and other Indian interests.

The USAID has authorised a loan of Rs 21.66 crores in Indian currency to the Zuari Agro-Chemicals.

The 120 million dollar (Rs 90 crores) Kandla-Kalol complex is being built by Indian and American co-operatives, working together.

The project is believed to be the world's largest international business transaction by co-operatives, according to the International Cooperative Development Association. At the request of the Government of India, the USAID under contract with the Cooperative League of the U.S.A. (CLUSA), provided feasibility study teams to explore the possibility of establishing this fertilizer plant. Their report was the basis for this project.

U.S. co-operatives will contribute 1 million dollar (Rs.75 lakhs) for technical assistance through Co-operative Fertilizer International to the Indian Farmers Fertilizer Co-operative, the Indian organization collaborating with this project.

For one of the principal participants, Co-operative League of the U.S.A. the project marks a major fruition of 15 years of joint effort with Indians to develop and stren-
The co-operatives in India. The League has maintained an office in New Delhi since 1955.

The fertilizer complex will produce, on a 330-day-per-year basis, 229,000 tons of nitrogen, 122,000 tons of phosphate, and 62,000 tons of potash. This amounts to more than 800,000 tons of finished fertilizer products. Experts believe this single plant could account for more than 2.2 million tons of additional wheat or rice in a year.

FERTILIZER IMPORTS:

Because the demand for fertilizers in recent years greatly exceeded local production, India has imported large quantities of fertilizers, with the United States the largest supplier. U.S. non-project aid for the last three U.S. fiscal years has totalled approximately 255 million dollars ($ 191 crores) for the import of fertilizers.

PLANT PROTECTION:

Plant diseases as well as insects, rodents, and other pests destroy a sizable part of India's food production. The Government of India has launched a large-scale plant-protection programme. The consumption of pesticides increased twelve-fold between 1957 and 1969. The area treated with pesticides is expected to rise from 16 million acres in 1961 to 200 million acres in 1974. At the Indian Government's requests, USAID is assisting in several sectors of plant protection.
India presently produces 70 percent of all the pesticides used by her farmers. U.S. non-project loans finance the import of technical-grade pesticides, which are then formulated in India. A considerable portion of India's domestic production of pesticides is accounted for by joint Indian-American private enterprises, which have received loans from the U.S. Government.

Spraying pesticides from the air is a quick and highly effective method of pest control for certain crops and conditions. Through aerial spraying, large areas are covered in a short time and pest epidemics controlled before they break out. The Government of India has established aerial spraying units and is providing encouragement to private firms in this field. A considerable part of the fleet of planes now engaged in aerial spraying in India is of American origin. The Indian Government allocated 1.5 million dollar (Rs.1.13 crores) from a U.S. Export-Import Bank line of credit to purchase 24 additional U.S. spray aircraft.

RURAL ELECTRIFICATION:

Rural electrification helps increase food production by energizing pump-sets connected to wells and tube-wells. Electric power is also useful in the efficient processing of foodgrains and the creation of modern storage facilities. In the United States, co-operatives play a
significant role in this field. At the Government of India's request, USAID arranged for visits by officials of American co-operatives to India to investigate the possibilities of establishing co-operatives to distribute power in rural areas.

Under a contract with USAID, the National Rural Electric Co-operative Association of America (NRECA) sent three teams to India. Along with officials of the Central and state Governments and Indian co-operatives, the teams conducted detailed studies on the establishment of five pilot co-operatives—one each in Andhra Pradesh, Gujarat, Maharashtra, Mysore, and Uttar Pradesh. Agreement has been reached between USAID and the Government of India, on the organization and construction of these co-operatives. At the request of the Government of India, five NRECA technicians arrived in India in September 1969 for a two-year assignment. The pilot co-operatives are now in operation.

In July 1969 the U.S. Government approved a grant of Rs.105 crores from PL-480 U.S. uses rupees to the newly established Rural Electrification Corporation. Together with a sum of Rs.45 crores made available by the Government of India, the grant will help finance a major acceleration in the spread of electric power.

The Rural Electrification Corporation—whose board of directors consists of representatives of the Planning
Commission, Ministry of Irrigation and Power, Ministry of Finance, Ministry of Agriculture and Reserve Bank of India—expects to play an important role in the Fourth Plan's power programme. The Corporation will energize about half a million new electrically operated pump-sets. These pump-sets will provide irrigation to 2.5 million acres.

The Corporation will finance rural electrification projects undertaken by the state electricity boards; subscribe to special rural-electrification bonds issued by them; and provide loans to rural electric co-operatives. The programmes to be financed will include not only the extension of electric lines for pump-sets for intensive agriculture, but also power for small-scale rural industries, lift irrigation from rivers, and domestic lighting.

The Corporation will help select projects in areas of greatest agricultural potential where projects will meet criteria of economic viability. But projects in economically backward areas with future agricultural potential will also be assisted. Capital requirements of rural electric co-operatives will also be financed by the Corporation.

**SOIL AND WATER MANAGEMENT:**

India has made notable progress increasing the area under irrigation. The gross irrigated area increased from 56 million to 89 million acres over the past 18 years. Emphasis is also being given the efficient utilization of water supply,
so as to obtain maximum benefits from costly irrigation projects. At the request of the Government of India, USAID is providing assistance to programmes for developing additional water and properly managing India's soil and water resources.

Several American specialists work with the water management division of the Ministry of Food & Agriculture. They assist the Government of India in developing programmes and establishing technical standards for soil and water management on rainfed and irrigated lands. One specialist assists the resource inventory unit of the Ministry in compiling information about India's soil and water so that it can be used in planning and implementing agricultural programmes. A surface-water hydrologist assists the soil-conservation branch of the Ministry to improve techniques for the prediction of flood flows and water yields from small watersheds. A sedimentationist assists the same branch in developing methods of predicting the volume of sediment which may be expected in reservoirs and channels under different conditions of watershed management. A tube-well specialist is assisting the minor-irrigation division of the Ministry with problems concerning the design, construction, operation, and maintenance of tube-wells.

To assist state governments and to demonstrate improved water-management methods to farmers, USAID is helping
three pilot projects - near Bellary (Mysore), Patiala (Punjab), and Dhorighat (Uttar Pradesh). On these projects, teams of engineers, soil scientists, and agronomists help plan and apply programmes designed to give optimum benefits through proper water use and consistent with the conservation and maintenance of the soil.

**IRRIGATION:**

India's irrigation programmes received T.C.M. assistance through its participation in tube-well, river-valley projects and ground water exploration projects. As a result of massive American assistance India has now been able to have one third of world's total irrigated land, with a total irrigated land of 29 million hectares, against 21 million hectare in 1950-51 (vide Appendix for statistical data).

**AGRICULTURAL UNIVERSITIES:**

During the past decade eight new agricultural universities have been established in India with the co-operation of the U.S. Government and six American Universities. The new Universities (co-operating U.S. institutions indicated in parentheses) are located in Andhra Pradesh (Kansas State University), Madhya Pradesh (University of Illinois), Maharashtra (Pennsylvania State University), Mysore (University of Tennessee), Orissa (University of Missouri), Punjab (Ohio State University), Rajasthan (Ohio State University),
The new Indian universities have effected several radical innovations. Students are encouraged to do a great deal of practical work in the fields. Professors undertake research in problems facing farmers of the adjacent regions.

Four universities—Andhra Pradesh, Madhya Pradesh, Mysore, and Punjab, have taken over the responsibility for all state agricultural research programmes. To an ever-increasing extent, all agricultural universities are participating in extension work carrying knowledge of improved methods to farmers by providing training for extension workers and in some cases directly taking over extension education work in large areas.

Research undertaken by the agricultural universities has been of great value to farmers. For instance, several of the new hybrid varieties of maize and bajra were developed at the Punjab and Uttar Pradesh agricultural universities. A great deal of the work involved in breeding and testing the phenomenally successful dwarf wheats was carried on at these two universities and also at agricultural universities of Madhya Pradesh and Rajasthan.

The large number of students graduating from India's agricultural universities are helping increase food production through service in Government agricultural departments,
research stations, and in the research, promotional and sales divisions of enterprises producing fertilizers, pesticides and improved seeds.

**Agricultural Research:**

The Agricultural Research Service International Programme Division of the U.S. Department of Agriculture, has extended grants for research to Indian universities and other research institutions throughout India. Using PL 480 sales proceeds these research grants are awarded for work by Indian scientists on complex agricultural research programmes of mutual interest to the governments of India and the United States.

Research results obtained by Indian scientists on these projects have been of much value in the worldwide development of agricultural science. Potential benefits are enormous. In addition to basic scientific studies, grants are awarded in areas of crop improvement, plant protection, marketing, economics, forestry, human nutrition and other aspects of farm and forest research.

Since the very beginning, the U.S. Technical Cooperation Mission co-operated with several research programmes in India. The All India Soil Testing service was sponsored by the Mission and through this centre many Indian agricultural workers are provided with training. The
The Indian Council of Agricultural Research has been working, under the USAID assistance, on the use of atomic energy for agriculture and for co-ordinated agricultural intelligence services. The American conservation experts assigned to the Central Conservation Board of the Ministry of Food and Agriculture, New Delhi, have introduced hybrid seeds for maize and sorghum and 1200 varieties of sugarcane available in the world have so far been developed. Thus, all known sugar protoplasm have been available to Indian sugarcane growers.

**Other Assistance:**

The United States also has supplied iron and steel for making agricultural implements; soil-testing equipment; trawlers, boats, and cold storage for fishery modernization; tube-well casing and machinery for boring tube-wells; tractors, combines, and other agricultural machines; modern silos; and dairy and poultry equipment.

Also, the American International Association for Economic and Social Development and the Stanford Research Institute of the U.S.A. have worked in the fields of India's Co-operative Movement, Agricultural credit, rural industries and handicrafts.

**An Appraisal of Progress.**

Indian farmers produced a record foodgrain crop of about 100 million tons in 1969-70. The 1970-71 record of
foodgrain production is estimated at nearly 110 million tonnes or more. Qualified observers have described the remarkable increase in India's food production—from a low of 72 million tons in drought-stricken 1965-66 as a "Green Revolution". The production of Rice is reaching the figure of 43 million tons in 1970-71 against that of 40.4 million tons in 1969-70. Wheat production is estimated as 20.1 million tons in 1970-71.

India's highly successful new agricultural strategy is focused on combining high-yielding varieties of cereal grains with a "package" of agricultural requirements—fertilizers, pesticides, improved farm equipment, credit, and grain-storage facilities—in areas assured of sufficient water for irrigation. This intensive agricultural scheme was introduced all over the country. Since 1961-62 this intensive programme, known as 'package programme' has been largely cooperated by the USAID. A large number of districts in different Indian States have been covered by this programme. This is a classic example of structural and qualitative transformation in Indian agriculture.

It can be concluded by saying that American assistance has brought about a new wave of enchanting prosperity in Indian agriculture and rural life. The current green revolution undoubtedly has been spirited and accelerated by such
massive U.S. assistance. U.S. technical assistance has definitely led Indian agriculture to shift from stagnation to sustained growth. The Fourth Five Year Plan is expected to reach the plan-target of production of foodgrains. The present Indian growth rate is nearly 6% per annum against the 4% growth in 1949 (vide draft 3rd Five Year Plan, 1960, PP 17).

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