

The USAID Contribution to the Economic Development of

UTTAR PRADESH



U.S.A.I.D. Mission to India, New Delhi
Office of Development Policy
Program Division

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UTTAR PRADESH

THE LAND AND THE PEOPLE

What Greece has been to European culture, Uttar Pradesh (U. P.) has been to Indian culture. For over 3,000 years, the State has been the political and cultural heart of India.

As the cradle of Buddhism and the scene of many Moghal triumphs and historic battles, Uttar Pradesh bears many monuments to her past glory. The Buddhist ruins around Varanasi (Banaras), the Fatehpur Sikri and the Taj Mahal at Agra draw thousands of tourists annually. The area abounds in good huntings. A popular tourist attraction is the unique Corbett Park game preserve. The hill stations of Uttar Pradesh are among the best and most frequented in India. The holy Ganges and the Yamuna Rivers joint at Allahabad. Their confluence (Sangam) is second only to Varanasi as a point of pilgrimage.

Uttar Pradesh is a land-locked state. Its northern boundary forms the international boundary with China and Nepal; to the west lie Himachal Pradesh, Haryana, Delhi and Rajasthan; to the south lies Madhya Pradesh and to the east Bihar.

Covering an area of 113,654 square miles, Uttar Pradesh occupies about 9 per cent of the total area of country, ranking fourth among Indian states in terms of area after Madhya Pradesh, Rajasthan and Maharashtra. Uttar Pradesh is the most populous state of the Union. With a total population estimated at 88.3 million in 1971, Uttar Pradesh's population density is nearly twice (300 persons per square kilo meter) of the All-India average of 182 persons per square kilo meter.

The state is predominantly rural in character. About 87 percent of the population lives in some 112,624 villages, while the remaining 13 percent reside in cities and towns. The state has 17 of the nation's 100 cities with a population of 100,000 or more, housing more than five million people. Kanpur with a population of more than 1.3 million is the largest city and Lucknow, the state's capital with more than 656,000 is second.

GEOGRAPHY AND CLIMATE

Physiographically, Uttar Pradesh can be divided into three distinct regions: (i) northern mountains; (ii) southern hills and plateau and (iii) the Ganga plain.

(i) Northern Mountains: The lofty Himalayas embrace the northern districts of Uttar Pradesh (Uttar Kashi, Chamoli, Pithoregarh, Tehri-Garhwal, Almora, Nainital, Chakrata and part of Dehra Dun districts) covering about one-sixth of the total area of the state.

In the north the Himalayas rise from a height of 10,000 feet to a magnificent series of

snow-clad peaks more than 20,000 above sea level. The glaciers on the heights of Gangotri (16,000 feet) and Janmotri (20,000 feet) both in Uttar Kashi district feed the head-waters of the Ganga and the Yamuna rivers. After a tortuous journey in the mountains, these rivers flow down into the plains blessing them with water and fertile soil. The region is deeply cut by the Yamuna, the Ganga, the Ramganga, the Sarada, and their tributaries. Apart from the valleys, the region displays a highly dissected and rugged topography which has rendered some areas almost inaccessible. The very inaccessibility of this area has added to its fascination.

(ii) Southern Hills and Plateau: This region covers almost all the southern district (Jhansi, Jalaun, Hamirpur, Banda, Mirzapur and part of Allahabad) of the state. The altitude in this area ranges from 1,000 feet to 1,500 feet. The general slope is towards the north-east. The Kaimur Hills are located in the Mirzapur district north of the Son river. Alluvium formation along the Son is negligible. The Rihand river flowing northward joins Son at a point south of the Kaimpur range. Due to erratic annual levels of rainfall, agricultural productivity in this area is about the lowest in the state. However; the region has large deposits of limestone.

(iii) The Ganga Plain: Between the Himalayas in the north and the hills and plateau in the south lies a vast homogenous alluvial plain-one of the finest and largest in the world. One of the most outstanding characteristics of this plain is the immense thickness and uniformity of the alluvium throughout its entire stretch. Because of the deep alluvium strata the region is almost devoid of minerals. On the other hand, its high fertility has led to heavy pressure of population on the land. The northern strip of the plain, called "bhabhar" (meaning porous) and "terai", possesses some distinctive features of its own. The "Bhabhar" land is porous and is covered largely with dense forests. The bhabhar is most well-marked in Nainital district, thereafter it penetrates east into Nepal. Below the bhabhar lies the "terai" a belt formed by the deposition of the finer river alluvium materials. Rivers which disappear in the bhabhar make their reappearance in the terai. Originally, the terai covers a wider zone, about 50-60 miles in the west and narrows in the east, but it has been greatly reduced by reclamation and settlement. Now the true terai is confined to a narrow strip parallel to bhabhar. The terai, where reclaimed, is covered with dense forests and tall grass. The forest products have not been fully exploited yet.

CLIMATE

The state has a tropical climate except for the Himalayan region which has a temperate climate. The average annual rainfall in the state (excluding the northern mountainous region) is from 86" to 110".

RIVERS

The main rivers of the state from west to east are the Yamuna, Ganga, Ramaganga, Gomti and the Ghaghara. All the rivers, except Gomti, emerge from the Himalayas. The Yamuna and the Ganga flow from the north-east to the south-west in their upper mountainous course, from the north to the south in western parts of the state and thereafter from the north-

west to the south-east joining at Allahabad. The rivers Ganga and the Ghaghara are often flooded during the monsoon and cause considerable damage to human life, livestock and property. The Ganga, the Yamuna and the Ghaghara are navigable for internal traffic.

The rivers of the Uttar Pradesh rank among the largest of the country. In particular, the Ganga ranks among the largest rivers of the world. Most of the rivers of Uttar Pradesh are snow-fed and hence the flow of water is perennial and massive even during the dry season. Few other parts of the country enjoy a similar advantage.

AGRICULTURE

Uttar Pradesh is more heavily agricultural than the country as a whole. This sector employs over 76 per cent of the state's working force. The state enjoys certain physical and climatic advantages conducive to the development of agriculture which are absent in neighbouring states. The vast Gangetic plain consisting of thick alluvial soil is one of the most fertile areas in the country. Irrigation facilities have been developed on a fairly wide scale. The major crops of the state are wheat, rice, gram, maize, and barley. Wheat accounts for over 37 per cent of the state's total foodgrain production. In fact, the state produces about one-third of the country's total wheat output. About half of the country's barley output is produced by this state. All in all Uttar Pradesh produces about 18 per cent of the country's total foodgrains production.

The state also produces more than two-fifths of the total sugar-cane production in the country. Of the total output in the country, this state alone produces a little over one-third of the linseed and one fourth of the sesamum output.

The acreage and production data for the state's major crops for 1969 are as follows:

	<i>AREA</i> (000 hectares)	<i>PRODUCTION</i> (000 tons)
FOODGRAINS		
Wheat	5,239.1	6,086.8
Rice	4,521.1	2,922.1
Maize	1,502.1	1,330.2
Barley	1,411.2	1,149.5
Gram	2,244.9	1,544.6
Bajra	1,049.9	577.7
Jowar	823.6	452.7
Tur	608.0	691.1
Ragi	212.2	136.2
Small Millets	568.4	348.8
Other Pulses	1,216.7	1,048.5
CASH CROPS		
Sugarcane	1,233.7	5,108.3
Oilseeds	3,759.4	1,660.1
Cotton	53.2	45.6
Potato	182.0	1,707.7
Dry Chillies, etc.	18.2	7.0
Jute, Sannhemp	76.5	220.0
Tobacco	12.5	9.3
Opium	8.1	.2

1 Hectare=2,471 acres.

FORESTS

Forests are one of the richest natural resources of the state. The area under forestation in Uttar Pradesh is 3,895,000 hectares or 13.2 per cent of the total area of the state. This percentage of forested areas is lower than the 18.5 per cent average for the country as a whole. The forests in the state are yet to be exploited intensively to increase their productivity to meet the chronic shortage of timber, firewood, fodder, and other raw materials for forest-based industries. For forest development, Rs 130 million have been provided under the Fourth Five Year Plan.

INDUSTRY

For several centuries, the region now known as the Uttar Pradesh has not only occupied a position of prime importance in the political, religious and cultural life of India, but has also played a key role in the development of her trade, manufacture and commerce. Because of these factors, the state of Uttar Pradesh even now contains the largest number of medium and small towns in the Union. These towns are dotted with hundreds of well-organized markets for collection, processing and distribution of agricultural and non-agricultural products both within and outside the state. The great ancient centers of religion and learning like Varanasi, Mathura, Ayodhya, and Prayag, etc. also gave impetus to the development of a wide range of industries in their surrounding areas—zari and silk work of Varanasi still continues to be widely known throughout the world.

Uttar Pradesh now has a variety of industries producing a wide range of products. The Central Government operates several public sector undertakings in the State—Antibiotics Factory, Heavy Electricals, Fertilizer Factory, Diesel Locomotive Factory, Hindustan Aircrafts Ltd., Singrauli Coal Fields, Triveni Structural, Deep Freeze Meat Plant, and Modern Bakery Plant. Three other units viz. Telephone Factory and Heavy Duty Pumps and Compression Factory at Allahabad and H.A.L. Unit at Lucknow are underway.

The State Government also owns and operates plants in several industries—Precision Instrument Factory, Lucknow; Cement Factories, Churk and Dalla (Mirzapur—District); Vibhuti Glass Factory, Varanasi; Zeter Tractor Assembly Factory, Lucknow; and Rosin and Turpentine Factory at Bareilly.

The development of industries in the private sector has also been remarkable—textiles, engineering goods, automobile parts, cement, glass and glass products, leather, edible oils, machine tools, electrical machinery and electrical accessories, radio and television sets, chemicals, pharmaceuticals, rubber, alcoholic beverages, rayon, food and milk products, etc.

The private sector has exploited the advantages arising from the development of power and transport together with the availability of skilled labor to introduce new lines of production. The State Government has established 76 industrial estates for the development of small-scale industries.

MINERALS

Uttar Pradesh has few mineral resources. The major portion of the State is covered

by alluvium where no minerals are found. The few mineral reserves available are located in the northern and south-eastern regions of the state. Known minerals in the state are limestone, phosphosphate shells, glass sand and silica sand.

POWER

Generation and use of electricity in Uttar Pradesh commenced early in the present century with the establishment of a small hydro electric power station in the Himalayas for the electrification of Mussoorie. This was followed by the electrification of a few important towns such as Kanpur, Lucknow, Allahabad, Varanasi and Dehra Dun with local thermal and diesel generation. The pace of power development during the first half of the century remained very slow, and the total installed generating capacity in the state was 178 megawatts in 1950-51. During the three Five-Year Plans and three annual plans from 1966 to 1970, a total investment of Rs 4,150 million was made and the installed generating capacity of the state increased to 1,428 megawatts.

With the emphasis on minor irrigation schemes for electrification of tubewells and pumpsets to achieve self-sufficiency in food production and to fight drought conditions, extensive rural electrification program was taken up in 1966-67. As of March 1969, a total of 75,465 tubewells and pumpsets were electrified, besides electrifying 12,432 localities.

Because of the still higher demands, the state has planned to further increase its power generation and distribution program to 2,470 megawatts by 1973-1974.

Basic Data on Uttar Pradesh

1969

Capital : Lucknow

Language : Hindi

LAND AREA	113,654 square miles
Districts	54
Towns and Villages	112,891

POPULATION	88.3 million
Density	300 (per sq. km)

(Thousand of Hectares)	
GEOGRAPHICAL AREA	29,542

Area Cropped (gross)	22,074
Area Cultivated (net)	17,343
Forests	3,895
Not available for cultivation	4,513
Permanent Pastures and Cultural Waste, etc.	2,330
Fallow Land	1,485

POWER

Installed Generating Capacity	1,428 MW
Per Capita consumption	66 kwh
Villages and towns electrified	12,432
Pump sets energized	75,465

INDUSTRY

Factories	3,632
Persons employed (daily)	415,000

COOPERATIVES

Societies	49,015
Membership (million)	9.8

LABOR

Craftsmen Training Institutes	49
Enrollment	16,247

EDUCATION

Literacy	22.0 per cent		
	<i>Number of</i>		
<i>Type of</i>	<i>Insti-</i>	<i>Enroll-</i>	<i>Teachers</i>
<i>Schools</i>	<i>tutions</i>	<i>ment</i>	
Universities	11	44,000	3,058
Colleges for General education	185	299,415	8,617
Colleges for Professional education	112	57,616	9,435
Colleges for Special education	1,082	26,321	N.A.
Middle/High/ Higher Secondary	8,344	190,523	79,284
Primary Schools	58,438	8,016,533	163,752
Special/Professio- nal Schools	279	22,562	2,338
Schools for Other Education	253	58,431	N.A.

HEALTH

Hospitals	857
Dispensaries	1,118
Primary Health Centers	875
Beds	33,965
Doctors	10,791
Nurses (trained)	4,277
Nurses (untrained)	5,007

SOURCES : i) Times of India Directory, 1970.

ii) Statistical Abstract of India, 1969.

USAID Assisted Projects in UTTAR PRADESH



DEVELOPMENT LOANS

- × Rihand Valley Development, Pipri, Distr Mirzapur
- Kanpur Thermal Power Station, Kanpur
- * Varanasi Diesel Locomotive Works, Varanasi
- ▼ Hindustan Aluminium Corporation, Renukoot, Dtr. Mirzapur
- ▼ Synthetics and Chemicals Ltd., Bareilly

TECHNICAL COOPERATION PROJECTS

- ⊙ IIT - Kanpur
- ⊙ Agricultural Universities Development, Pantnagar (Nainital)
- ✓ Soil & Water Management, Azamgarh
- ✓ Rural Elec. Coop. Dev., Lucknow
- * Foodgrain Storage (Harduaganj, Kanpur, Gorakhpur, Varanasi, Lucknow, Hapur (Meerut) Sitapur, Allahabad, Bareilly, Agra, Basti, Azamgarh)
- ✓ Agriculture Extension (Aligarh)
- ✓ Dairy Development, Kanpur
- ⊙ Technical Education Institutes (Lucknow and Roorkee)
- ⊙ Forest Research - Dehra Dun
- ⊙ Geological Survey of India - Dehra Dun
- ⊙ Industrial Research & Technical Service Organization (Lucknow)
- ⊙ Building Materials Development (CBRI, Roorkee)
- ⊙ Social Welfare Center, Lucknow
- ⊙ Assistance to Medical Colleges and Allied Institutes - (King George Medical College, Lucknow)
- ⊙ National Productivity Council (Meerut, Rampur, Lucknow, Kanpur and Gorakhpur)
- ✓ Aviation Ground Facilities, Lucknow and Allahabad

LEGEND

- THERMAL POWER
- × IRRIGATION AND HYDEL POWER
- * LOCOMOTIVE WORKS DEVELOPMENT
- ▼ INDUSTRIAL EXPANSION
- * FOODGRAIN STORAGE
- ⊙ INSTITUTES AND UNIVERSITIES (Agricultural, educational, technological & Research)
- ✓ OTHERS

Summary of USAID Assistance

1952—

<i>US-GOI Projects and Activities</i>	(Figures in Thousands)			
	<i>L O A N S</i>		<i>G R A N T S.</i>	
	<i>Dollars</i>	<i>Rupees</i>	<i>Dollars</i>	<i>Rupees</i>
Confined to Uttar Pradesh¹	1,530	411,033	19,495	21,227
Kanpur Thermal Power Station	1,530	9,500		
Hindustan Aluminium Corporation		50,000		
Synthetics & Chemicals, Ltd.		65,000		
Rihand Valley Development		286,533	6,009	967
Indian Institute of Technology			13,394	20,260
Irrigation Research Institute			92	
Countrywide¹¹	2,466,021	1,312,200	289,228	3,024,718
Agriculture	10,845		69,818	81,511
Agricultural Universities Development			15,607	56,219
Soil & Water Management			2,938	10,956
Rural Electric Cooperative Development			495	1,667
Acquisition & Distribution of Fertilizers	8,854		20,118	
Agricultural Extension			3,013	2,458
Community Development	1,991		11,518	
Forest Research & Desert Afforestation			545	10
Foodgrain Storage			1,664	97
Agricultural Education & Research			8,981	5,144
Animal Husbandry			964	1,065
Crop Production			1,536	1,711
Dairy Development			994	239
Farmers' Organization			275	396
Soil & Water Conservation			964	1,549
Flood Control			206	
Education			17,666	43,087
Science Education Improvement			6,140	28,783
Technical Education Institutes			4,481	3,886
Multipurpose Secondary Education			3,992	8,250
Teacher Training in Engineering Education			2,250	1,690
Social Welfare Education			581	224
Rural Institutes			222	254

i) See Annex I

ii) See Annex II

Benefiting Uttar Pradesh

1970

<i>US—GOI Projects and Activities</i>	(Figures in Thousands)			
	<i>L O A N S</i>		<i>G R A N T S</i>	
	<i>Dallars</i>	<i>Rupees</i>	<i>Dollars</i>	<i>Rupees</i>
Health	12,233		90,239	13,330
Malaria Control & Eradication	9,533		80,773	1,736
Family Welfare planning	2,700		5,436	8,548
Assistance to Medical Colleges and Allied Institutions			1,056	
Medical Educator Training			1,751	2,023
Nursing Colleges			1,223	1,023
Labor			1,130	1,597
Trades Training			661	
Labor Ministry Training			469	1,597
Transportation	229,224		32,204	88
Railway Modernization	229,224		29,325	
Aviation Ground Facilities			2,879	88
Industry and Mining	10,888		57,095	8,000
Building Materials Development			199	
Acquisition & Distribution of Iron & Steel	10,399		50,394	
Assistance to Industrial Research & Technical Service Organizations	489		2,522	
National Productivity Council			3,337	7,897
Oil and Gas Commission			106	65
Geological Survey of India			537	38
Power			1,076	488
Technical Services in Water and Power Development			1,076	488
Commodity Imports	2,202,831		20,000^a	
Program Assistance-Loans	2,202,831			
Program Assistance-Grants			20,000	

Summary of USAID Assistance
benefiting Uttar Pradesh (continued)
1952-1970

<i>US-GOI Projects and Activities</i>	(Figures in Thousands)			
	<i>LOANS</i>		<i>GRANTS</i>	
	<i>Dollars</i>	<i>Rupees</i>	<i>Dollars</i>	<i>Rupees</i>
PL 480 Rupee Assistance for Development Activities		1,312,200		2,876,617
Indian Institute of Technology		42,600		52,000
Higher Technical Education		265,700		165,600
Elementary Education		428,300		783,100
Technical Education Institutes				1,200
Primary Health Centers		60,000		105,500
Smallpox Eradication		27,300		102,900
Malaria Control & Eradication		194,600		851,500
Family Welfare Planning				84,690
Medical Educator Training				74,000
Foodgrain Storage		29,500		160,735
Soil & Water Conservation		29,000		100,829
Craftsmen Training		235,200		394,563

USAID assisted projects and activities confined to the State of Uttar Pradesh

Projects and Activities

*U. S.
Inputs*

A. DEVELOPMENT LOANS

Kanpur Thermal Power Station : To increase electric generating capacity of the city of Kanpur. An agreement for a Development Loan was signed in FY 1960 to finance the foreign exchange cost of one unit of 15 MW.

USAID in FY 1960 made available a loan of \$1,530,057 in foreign exchange for the import of equipment required for the commissioning of one unit of 15 MW. In addition, GOI allocated Rs 9,500,000 from PL 480 funds on a loan basis to meet the local costs of the project. The Unit was commissioned in 1963.

Varanasi Diesel Locomotive Factory, Varanasi : To manufacture diesel locomotive engines for Indian Railways. The Varanasi factory was established with United States assistance and presently it has a capacity of producing over 150 diesel locomotives a year.

The Export-Import Bank of U.S. has extended three dollar loans totalling \$48,750,000 to the Varanasi plant. The first loan, of \$19,000,000 was authorized in 1963; the second of \$17,000,000 in 1965; and the third, of \$12,500,000 in 1966. Collaborating in the Varanasi venture is ALCO Products Inc., of Schenectady, New York, one of America's largest manufacturers of diesels. The U.S. firm has supplied machinery and equipment and has provided training to Indian technicians. Starting with the assembly of imported parts, the Varanasi Diesel Plant has substituted a growing proportion of locally produced component parts in construction of locomotives. A number of these component parts are manufactured in the Varanasi Diesel Plant itself.

"FY" Used in this booklet designates U. S. Fiscal Year July 1 to following June 30.

USAID assisted projects and activities

Projects and Activities

*U. S.
Inputs*

Varanasi Diesel Locomotive Factory, Varanasi
(Contd.)

The plant employs over 5,000 to 6,000 workers. Its 11 buildings house 20 different workshops, spread over an area of 122 acres.

Hindustan Aluminium Corporation, Renukoot, Varanasi : To finance construction and procurement of equipment of the company's aluminium fabricating plant at Renukoot. The company is affiliated with Kaiser Aluminium and Chemical Corporation of Oakland, California.

The U.S Export-Import Bank extended three dollar loans totalling \$29,366,000 in foreign exchange for the procurement of equipment. In addition, USAID made available three loans amounting to Rs 50,000,000 from PL 480 Cooley loans to meet the local costs of the project.

Synthetics and Chemicals, Ltd., Bareilly : To finance the construction of plant at Bareilly for the manufacture of synthetic rubber and also provide working capital. The company is collaborating with Firestone Tire and Rubber Company of Akron, Ohio.

USAID authorized a loan of Rs 65,000,000 from PL 480 Cooley loans to meet the local costs of the project.

B. TECHNICAL ASSISTANCE

Indian Institute of Technology, Kanpur (FY 1960-) : Soon after independence the Government of India recognized the need for industrialization and began planning an ambitious program for development of engineering education. The Sarkar Committee, convened to study development requirements of technical education in 1948, noted that the facilities then existing for higher technical education in India were inadequate both as to quality and quantity. It recommended that four institutes of technology be established in India, which could come up to international standards in higher technical education and provide large enrollments.

USAID has financed through December 31, 1970, the services of 102 technicians to assist the Indian Institute of Technology, Kanpur in its research and training. USAID has also provided training facilities for twenty-nine staff-members in the United States for a total of 349 man-months. Twenty U.S. technicians are on board at the campus. Of the total assistance \$13,394,000 and Rs 20,260,000, \$7,154,000 have

confined to the State of Uttar Pradesh (continued)

Projects and Activities

U. S. Inputs

In developing these IITs, India has had the assistance of several nations and agencies. The United States has worked with the Indian Government since 1960 in developing IIT/Kanpur in Uttar Pradesh. The Soviet Union, West Germany, and the United Kingdom are assisting India in building, equipping and developing four other IITs.

Working with a group of nine American Universities, the USAID agreed to supply IIT/Kanpur with a team of top level advisors in engineering education and to finance the engineering and laboratory equipment that a modern, first-quality school of technology needs.

Since 1962, IIT/Kanpur has been receiving USAID assistance through a contract with the Education Development Centre, Inc.,—the representative of a consortium consisting of the California Institute of Technology, Carhegie-Mellon University, Case-Western Reserve University, Massachusetts Institute of Technology, Ohio State University, Purdue University, Princeton University, the University of California and the University of Michigan.

IIT/Kanpur has now become the premier technical institute in India in terms of its undergraduate and graduate programs, quality of faculty, physical facilities, research programs and library. The campus is a major focus for inservice engineering courses and seminars, a site for contract research and development, and a center around which major modern industrial plants are beginning to be established. Qualified graduates of IIT/Kanpur are in great demand in both public and private sectors. The attraction of a teaching position at the Institute has been powerful enough to enable the GOI to recruit about 70 per cent of IIT/Kanpur

been used for the purchase of laboratory and engineering equipment, library books and computer hardware, while the \$5,884,000 have covered contract technicians' salaries, participant training costs, and contract management overhead charges.

In addition to the above U.S. grant, the GOI allocated Rs 94,600,000 (grant Rs 52,000,000 and Loan Rs 42,600,000) from PL 480 funds for meeting the local costs of the project.

USAID assisted projects and activities confined to the State of Uttar Pradesh (continued)

Projects and Activities

*U. S.
Inputs*

faculty from overseas positions, thus tending to reverse the "brain-drain".

In the last ten years Kanpur's own staff and student enrollment has also grown. The Institute's total staff is now about 1,000 of whom approximately 250 are teaching faculty. From an undergraduate enrollment of 100 in 1960, the number has risen to over 1,300 today. The post-graduate enrollment has risen from 39 in 1963 to 695 currently. Kanpur's first graduating class in 1965 contained 66; in 1969 there were 164. In 1965 no master's degrees in technology or science were awarded; in 1969 there were 91 and 24 respectively. Five doctorates were awarded in 1965 and 28 in 1969.

Rihand Valley Development (FY 1952 - FY 1966) : To assist in development of the water resources of the Rihand River. The dam across the river Rihand near village Pipri in Mirzapur district, 29 miles south of its confluence with the river Son, will serve agriculture and industry in the east and southeast section of Uttar Pradesh. The dam stores about 8.6 million acre feet of water and the power station has 250 megawatts of installed generating capacity. The first unit began generation in 1962; the entire 250 megawatts plant now is operating.

Irrigation Research Institute (FY 1956-FY 1959) : To develop facilities for research and testing construction materials and to assist in expanding the hydraulics laboratory.

USAID provided more than \$6,009,000 and Rs 967,000 funds, to finance heavy equipment for construction of the power station and the dam (\$5,900,000) and 48 man-months of service by United States engineers; Section 402 rupee loans totalling Rs 197,333,000 and PL 480 loans of Rs 89,200,000. The USAID financed more than 73 per cent of the entire cost of the project.

USAID assisted in the construction and equipping of a modern research and materials testing laboratory at the Institute at Roorkee (\$85,000) and provided three months' consultant services in equipment installation and initial laboratory operation. Total assistance : \$92,000.

Countrywide projects and activities benefiting the State of Uttar Pradesh

A. CURRENT ACTIVITIES

PL 480 TITLE II PROGRAM

The Title II (formerly Title III) food donation program is a "people-to-people" program through which U.S. citizens express their humanitarian concern for and share their food abundance with needy people and school children. The program is carried out by distributing agencies, i.e., inter-governmental organizations and U.S. non-profit voluntary agencies.

During FY 1970 gift commodities such as non-fat dry milk, bulgur, corn soya milk (CSM), whole wheat, wheat flour and vegetable oil, totalling 497,500 metric tons were allocated for distribution to approximately 17.2 million beneficiaries in the country under the program.

In FY 1971, 364,070 metric tons of gift commodities have been approved for distribution to approximately 14.6 million beneficiaries throughout the country under this program.

In Uttar Pradesh during FY 1970, gift commodities were provided for 758,300 people through 4,855 distribution centers and American voluntary agencies. The breakdown of the number of people who benefited from the program by category and voluntary agency is indicated below :

NUMBER OF BENEFICIARIES

<i>Name of Agency</i>	<i>Mat. and Pre-School</i>	<i>School Feed- ing</i>	<i>School Hostels</i>	<i>Other Children</i>	<i>Economic Develop- ment</i>	<i>Institutional Feeding</i>	<i>Health Cases</i>	<i>Educational Develop- ment</i>	<i>Total</i>
CARE		650,000							650,000
CRS	24,100	8,300		4,000	35,600	1,000	2,000		75,000
CWS/LWR	4,000	4,200	5,400	5,100	11,000	1,500	1,500	600	33,300
TOTAL	28,100	662,500	5,400	9,100	46,600	2,500	3,500	600	758,300

- GARE - Cooperative for American Relief Everywhere ;
 CRS - Catholic Relief Services ;
 CWS - Church World Service ;
 LWR - Lutheran World Relief.

Countrywide projects and activities

*Projects and Activities with
Countrywide Objectives*

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Agriculture

Agricultural Universities Development (FY 1964 —): To assist the GOI in developing State Agricultural Universities capable of planning and administering fully integrated statewide programs in agricultural teaching, research and extension. The seven universities which have been assisted under this project since 1963 are in the states of Orissa, Mysore, Punjab, Madhya Pradesh, Andhra Pradesh, Rajasthan and Uttar Pradesh. The eighth, Maharashtra University, was added to the project in 1968. U.S. assistance through December 31, 1970 totalled \$15,607,000 and Rs 56,219,000.

The Uttar Pradesh Agricultural University, formed in 1958, was the first of the eight agricultural universities to be established in India, and it is the only one which has been started as a completely new institution without pre-existing colleges. The entire campus and all of the facilities have been developed since 1958 on the site of the 16,000 acre Terai State Farm, which was transferred by the State Government to the University. The first group of students was admitted in July 1960.

Under a contract with the University of Illinois, USAID is providing assistance to the University. Through FY 1970, the USAID has provided 41 U.S. specialists and consultants, participants training in the United States for 43 staff members, and commodities amounting \$367,000. Currently, seven U.S. technicians are on board at the University. Total assistance through December 31, 1970 was \$2,645,000 and Rs 8,172,000.

The graduates of Uttar Pradesh Agricultural University depend less on governmental agencies for employment than do the graduates of any of the other agricultural univer-

benefiting the State of Uttar Pradesh (continued)

*Projects and Activities with
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Agricultural Universities Development (contd.)

Soil and Water Management (FY 1967 —): To stress efficient development and use of water resources to perfect and apply adapted soil and water conservation measures as an integrated program to increase food production. The program consists of four primary activities of assistance to the Government of India: (a) in providing a coordinated approach for soil and water management and conservation including the identification of problems and the development of organization to meet these problems; (b) in developing a strong program for research in soil and water management; (c) in carrying out pilot demonstrations for soil and water management in the states of Mysore, Punjab and Uttar Pradesh; and (d) in developing an organization to gather information and provide analysis of the location and extent of India's ground-water resources. Total assistance under this

sities. This is due in part to the excellent training with the strong emphasis on practical experience, an effective placements service and the high regard demonstrated by industry, banks and agri-business for the employment of UPAU graduates. The University's program of adaptive research and its development of seeds, new agricultural practices and equipment among other tractors, are making an important contribution to agriculture in Uttar Pradesh. The University's extension specialists are now working in rural districts adjoining the university campus.

As a part of an India-wide project, one of the three pilot demonstration projects has been initiated in the Dohri Ghat, Azamgarh district, project area in Uttar Pradesh to assist in developing the techniques necessary to implement an improved statewide program of soil and water management. A team consisting of a Water Management Specialist, an Agricultural Engineer, a Soil Scientist, and an Agronomist arrived in July 1969. The Team Leader is located at Lucknow, while the other three are stationed at Dhori Ghat; all team members are furnished by

Countrywide projects and activities

Projects and Activities with Countrywide Objectives

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project through December 31, 1970 was \$2,938,000 and Rs 10,950,000.

the United States Department of Agriculture Soil Conservation Science, under an agreement by the AID.

23 Indian technical officers were trained in irrigation water use and management as part of their training program in the project area. Field work for the detailed soil survey has also been completed. General soils map of Uttar Pradesh was produced for the project. Twelve demonstration pilots on different soils having different types of water supplies has been established. A project committee has been set up to review all proposals for demonstration. In addition USAID provided training facilities to three participants for a total of 20 man-months in the United States.

Rural Electric Cooperative Development (FY 1967 —): The USAID is providing assistance to the GOI to start a rural electric cooperative project on a pilot basis in the states of Gujarat, Mysore, Maharashtra, Andhra Pradesh and Uttar Pradesh. The objectives of the project are to: (i) furnish electricity to the rural people at the lowest possible cost in order to increase agricultural production, stimulate small agro-industry, and improve the standard of living of the rural population; (ii) increase the responsibility of the people by giving them some degree of control over their electricity supply; (iii) establish local organizations for the financing, procurement,

The Uttar Pradesh Pilot Rural Electric Cooperative project is located at Goasanganj, Mohanganj in Lucknow district. There the Rural Electric Cooperative Supply Society Ltd., has been established with a membership of 4,068. It will begin distribution of power in early 1971 through lines transferred from the Uttar Pradesh Electricity Board. With the development of electricity, the economy of the area is expected to improve

benefiting the State of Uttar Pradesh (continued)

Projects and Activities with Countrywide Objectives

State Participation and Benefits

installation, repair, and proper use of electrical appliances and equipment such as pump sets; (iv) provide the basis for a rapid and standardized pattern of construction and operation of rural electric systems in all states of the Union; and (v) provide a meaningful training experience for Indian personnel involved in rural electric cooperative activities so that they help other such cooperatives. USAID is providing technical services through a contract with the National Rural Electric Cooperative Association (NRECA). Total assistance through December 31, 1970 was \$495,000 and Rs 1,667,000.

Education

Science Education Improvement (FY 1963 —): To improve the teaching of science, mathematics and technology by training Indian teachers at the higher secondary and college levels in the most recent developments in their specialties and in modern teaching methods. From 1963 through 1970, a total of 891 summer institutes were conducted in biology, physics, chemistry, mathematics, and engineering for approximately 36,000 teachers and professors of these subjects. A total of 1,078 U.S. consultants have participated in these summer sessions. U.S. technical assistance is being provided through the National Science Foundation, and has totalled \$6,140,000 and Rs 28,783,000 through December 31, 1970.

Health

Malaria Control and Eradication (FY 1953 —): To assist the GOI in its National Malaria Control and Eradication Program. Prior to 1953, malaria was considered to be India's greatest health scourge. Every year there

and the living standards of the people to be raised considerably. To assist this cooperative society and the Uttar Pradesh State Electricity Board, the USAID is providing the services of one technician who is stationed at Lucknow. In addition, USAID has also provided training facilities abroad for one of the state's participants for a total of 3 man-months.

Through FY 1970, 120 summer institutes have been held in the State of Uttar Pradesh, and approximately 480 professors have received training. Four participants also received training in the United States for a total of 12 man-months.

The State of Uttar Pradesh participates in the national program of malaria control and eradication. As of June 30, 1969, 12 units with a

Countrywide projects and activities

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In addition to the above grants and loans, the U.S. has made another Program Assistance grant of \$ 20,000,000 in June 1970 to the Government of India for procurement of commodities; this grant will enable the GOI to increase its budgetary allocation for family planning activities in India.

Non-Project Loans

Commodity Imports under AID Non-Project Loans :
To assist the GOI to procure from the United States essential raw materials, machinery, and spare parts required for the growth of India's agriculture and industry. Since 1958, the USAID has made available to India \$ 2,202,831,382 as non-project loans through the Government of India. Industrial commodities imported under the various loans included chemicals, non-ferrous metals, specialized components such as roller bearing, and spares for industrial and construction equipment. Some portion of these loans was used for the import of DDT and anti-malaria drugs. Prior to 1963, these non-project loans were used mainly for industry and transport. Since that time, however, these loans have been used increasingly for agricultural inputs, with emphasis placed on fertilizer production. Almost 50 per cent of the recently authorized loans have been earmarked for the agricultural sector.

The agricultural and industrial sectors in Uttar Pradesh benefit from these general commodity import loans.

None of these loans has been used for the import of consumer goods or luxury items.

benefiting the State of Uttar Pradesh (continued)

*Projects and Activities with
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B. COMPLETED ACTIVITIES

Agriculture

Acquisition and Distribution of Fertilizers (FY 1952-FY 1958): To provide fertilizer to promote an increase in agricultural production. At the start of this project, the production of chemical fertilizers was completely inadequate and India was almost entirely dependent on imports. It was considered important to test new types of fertilizers on Indian soils and, if found suitable, to popularize the new products.

Uttar Pradesh was one of the states which participated in this country-wide program for increasing agricultural production.

Under this project, approximately 262,350 tons of fertilizers were made available to the GOI to be sold to the Indian farmers through the state governments. A portion of the supply was made available to the states for demonstration purposes.

Total USAID assistance through FY 1958: grant \$ 20,118,000 and loan \$ 8,854,000. These figures do not include the allocations made for the import of fertilizer under USAID Non-Project Loans.

Agriculture Extension (FY 1951 - FY 1967): To assist the Central and state governments in training an efficient corps of extension workers, planning and developing an effective extension program, and implementing the program in these fields. The GOI has established with USAID assistance 100 extension and 44 home science training centers to train Village Level Workers. Total assistance: \$ 3,013,000 and Rs 2,458,000.

Six project technicians served in Uttar Pradesh for a total of 132 man-months, two of them in the IADP program in the Aligarh District and also financed the training of 25 participants for a total of 204 man-months in the United States.

Countrywide projects and activities

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Community Development Program (FY 1952 - FY 1959) : To develop the material and human resources prerequisite for greater agricultural production through rural community development blocks. Agricultural extension centers, panchayats and cooperatives, village schools, community centers and social education programs were initiated in many rural areas.

Advisory services were provided as well as substantial commodity aid including jeeps, audio-visual materials, and agricultural implements. Total assistance: Grant \$ 11,518,000 and loan \$ 1,991,000.

Forest Research & Desert Afforestation (FY 1957 - FY 1962) : To provide equipment and technical assistance to support research and training in various aspects of forestry, including preservation of forest product industries and desert control and afforestation. Total assistance: \$ 545,000 and Rs 10,000.

Assistance was provided to the State Government for the development of rural community development blocks, extension centers, and village schools.

The USAID supplied modern equipment for forestry research laboratories (including a complete pilot paper plant) and technical publications costing \$ 340,000 to the Forestry Research Institute at Dehra Dun. In addition, the USAID provided the services of a paper maker engineer for installation and initial operation of the paper plant for ten months; a pulp and paper technology consultant for four months; and a forest pathology consultant for six months. Training for two Forest Research Institute staff members in pulp and paper technology was also provided in the United States.

benefiting the State of Uttar Pradesh (continued)

Projects and Activities with Countrywide Objectives

State Participation and Benefits

Foodgrain Storage (FY 1955 - FY 1966) : To demonstrate efficient grain storage through construction of modern grain elevators and to determine the most economical type of grain handling facilities for Indian conditions. Total assistance : \$ 1,664,000 and Rs 97,000. In addition, the GOI provided from PL 480 funds Rs 190,235,000 (grant Rs 160,735,000 and loan Rs 29,500,000) for the construction of over 100 godowns.

Twenty godowns were constructed in Uttar Pradesh at 12 locations with a total capacity of 323,000 tons. One of the largest godowns is at Hapur; it was completed in 1958 at cost of \$ 398,815.

Agricultural Education and Research (FY 1955 - FY 1963) : To strengthen and expand agricultural education and research in about 80 colleges and institutions throughout India by providing commodity support, technical advisory services, and participant training, at a total cost of \$ 8,981,000 and Rs 5,144,000. Assistance for the development of eight selected agricultural universities has been provided since 1963 under the Agricultural Universities Development project.

Under this project, USAID made available equipment and U.S. specialist services to several agricultural colleges and institutes in U.P. and also financed the training of 44 participants in the United States for a total of 623 man-months. USAID assistance to the Uttar Pradesh Agricultural University at Pant Nagar is being provided under the Agricultural Universities Development Project.

Animal Husbandry (FY 1955-FY 1967) : To assist the Central and state governments in poultry and livestock development and marketing by training Indian participants and providing demonstration and training equipment. Total assistance : \$ 964,000 and Rs 1,065,000.

Under this project, USAID provided demonstration equipment and books for (a) production and standardization of animal biologicals, (b) poultry production and marketing and (c) services of U.S. specialists in the Veterinary biological production, animal nutrition, livestock marketing, poultry husbandry, etc. USAID also financed the training of four participants for a total of 26 man-months in the United States.

Countrywide projects and activities

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Crop Production (FY 1955-FY 1967): To assist the GOI to increase foodgrain production by promoting and demonstrating the use of high yielding hybrid seeds of adapted varieties, establishing seed production control and certification standards, controlling fertilizer quality and expanding the use of fertilizers. Assistance included providing technician services, participant training and commodities, primarily for seed production and seed testing laboratories. Total assistance: \$ 1,536,000 and Rs 1,711,000.

Dairy Development (FY 1955-FY 1962): To assist the GOI in its dairy development program by providing technical services and essential equipment. Total assistance: \$ 994,000 and Rs 239,000. In addition, the GOI made available Rs 40,700,000 as a grant from PL 480 funds for the construction and development of 15 milk and milk product schemes in the country.

Farmers' Organization (FY 1956 - FY 1961): To increase agricultural production through the establishment of national, state and local farmers' organization capable of providing agricultural information to farmers. The Farmer's Forum was established. United States assistance was directed towards strengthening and expanding the Forum's leadership. Total assistance: \$275,000 and Rs 396,000.

Under this project USAID made available the supply of hybrid maize seeds, various items of scientific and laboratory and demonstrational equipment, etc. to the State Government. USAID also made available the U. S. specialist services for demonstration of potential hybrid corn production and improvement and financed the training of fifteen participants in the U.S. for a total of 116 man-months.

Under this project USAID provided considerable dairy equipment and U. S. specialist services to the Rural Creamery, Aligarh and to the Kanpur Dairy Plant. Also financed the training of two participants for a total of 18 man-months in the United States. The Kanpur dairy project was also assisted with rupee assistance made available to the GOI from PL 480 funds.

A four-month tour of the United States and Japan was provided for six Uttar Pradesh farm leaders, and a limited quantity of training equipment was supplied to the state government.

benefiting the State of Uttar Pradesh (continued)

Projects and Activities with Countrywide Objectives

State Participation and Benefits

Flood Control (FY 1955-FY 1966): To provide assistance in developing and analyzing data from river basins for designing and constructing flood controls. Three U.S. technicians assisted the Central Water & Power Commission; seven Indian engineers were given training in the United States, and modern meteorological equipment was supplied. Total assistance: \$206,000.

Soil and Water Conservation (FY 1959-FY 1967): To assist the GOI to increase agricultural production through effective soil and water management practices, to train Indian soil and water conservation technicians from the Union and state governments, and to conduct pilot projects. Total assistance: \$964,000 and Rs 1,549,000. In addition, the GOI allocated Rs 145,829,000 (grant Rs 100,829,000 and loan Rs 45,000,000) from PL 480 funds for this project.

Education

Technical Education Institutes (FY 1953-FY 1967): To assist in improving teaching methods in technical education. Through contracts with the Universities of Illinois, Wisconsin, and Michigan State, USAID provided U.S. professors, participant training and commodities. Total assistance: \$ 4,481,000 and Rs 3,886,000. The GOI allocated a grant of Rs 1,200,000 from PL 480 funds to purchase computer equipment under the project.

Multipurpose Secondary Education (FY 1956-FY 1969): To help recognize and improve secondary education in India. The first phase established 54 extension training centers for secondary school teachers.

For Uttar Pradesh, USAID provided equipment (engines and pumps and echo sounders) costing \$30,000 to six River Discharge and Investigation Stations at Allahabad, Varanasi, Kanpur and Buxar, and U.S. training for two participants.

USAID provided engineering instruments, soil and water loss measuring devices, soil gauges, training equipment, etc., and U.S. specialists services in Uttar Pradesh and financed the training of 13 participants from Uttar Pradesh for a total of 71 man-months in the United States.

USAID financed the services of 17 technicians for a total of 187 man-months to the Institute of Public Administration at Lucknow and Roorkee and training of 20 participants for a total of 314 man-months in the United States, commodities worth \$56,645 were also provided to the two universities.

USAID under the first phase assisted eight extension training centers, (two in Lucknow, two in Allahabad, one each at Aligarh, Agra,

Countrywide projects and activities

Projects and Activities with Countrywide Objectives

State Participation and Benefits

The second phase emphasized vocational education in the multipurpose secondary schools. The third phase from FY 1964 emphasized the development of four regional teacher training colleges with attached demonstration schools. Total assistance: \$ 3,992,000 and Rs 8,250,000.

Meerut and Varanasi) by providing equipment worth \$38,796. In the second phase, multipurpose schools (Lucknow, Dehai, Meerut, and Allahabad) received equipment worth \$12,000.

There was no activity in this State under the third phase of the project. In addition, three participants from the State received training in the U.S. for a total of 33 man-months.

Teacher Training in Engineering (FY 1958-FY 1961): To assist the GOI to improve the facilities and quality of engineering education. Under a four-year program, USAID provided an average of 18 months training to each of 299 Indian engineers. Total assistance: \$ 2,250,000. and Rs. 1,690,000

Forty-five engineers from the State received training in the United States for a total of 890 man-months.

Social Welfare Education (FY 1955-FY 1962): To strengthen and expand social welfare teaching institutions in India by providing commodity support, technical advisory services and participant training: Total assistance was \$581,000 and Rs 224,000.

USAID provided commodities worth \$3,500 and the services of three technicians for a total of 84 man-months to the Juggimal Kamlapat Institute at Lucknow. In addition, USAID financed the training of three participants from the State for a total of 35 man-months in the United States.

Rural Institutes (FY 1957-FY 1961): To support the GOI's rural education program, the USAID provided technical services, participant training in the United

USAID provided equipment costing \$6,172 to the Balwant Vidyapeeth Rural Institute at Bichpuri and

benefiting the State of Uttar Pradesh (continued)

Projects and Activities with Countrywide Objectives

State Participation and Benefits

States and instructional materials and equipment to 11 rural institutes in India. Specialization was offered in rural social services, rural extension and rural engineering education. Total assistance: \$222,000 and Rs 254,000.

financed the cost of participation of one of its staff members in a 12-month round-the world International Seminar/Training program.

Health

Assistance to Medical Colleges and Allied Institutions (FY 1954-FY 1957): To assist in upgrading and expanding medical education institutions in India. Scientific laboratory and professional equipment was provided to 16 medical research institutions, 41 medical colleges and various allied institutions. Total assistance: \$1,056,000, consisting mainly of commodities.

USAID provided equipment to the King George Medical College, Lucknow (\$63,000) and the Gandhi Eye Hospital, Aligarh (\$26,000).

Medical Educator Training (FY 1958-FY 1967): To improve the quality of medical education by providing technicians, participant training and commodity support. Total assistance: \$1,751,000 and Rs 2,023,000. In addition, the GOI allocated Rs 74,000,000 from PL 480 funds to improve medical education in India.

USAID financed the training of seven participants from the State for a total of 67 man-months in the United States.

Nursing Colleges (FY 1958-FY 1967): To improve the quality of nursing administration, nurse education, and in-service training to hospitals and nursing colleges by providing technicians, participant training and commodity support. Total assistance: \$1,223,000 and Rs 1,023,000.

USAID financed the training of two participants for a total of 18 man-months in the United States.

Labor

Trades Training (FY 1955-FY 1959): To assist the Ministry of Labor to expand and upgrade facilities in

USAID provided equipment to the State's 49 industrial training institu-

Countrywide projects and activities

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basic trades and crafts for pre-employed youth. Total assistance: \$661,000.

Labor Ministry Training (FY 1960-FY 1969): To improve the services provided by the Indian Central and state ministries of labor in the fields of manpower research and analysis, labor statistics, employment, conciliation and mediation and labor law administration. Total assistance under this project was \$ 469,000 and Rs 1,597,000 including \$352,000 for participant training.

Transportation

Railway Modernization (FY 1953 - FY 1965) : To provide foreign exchange for the procurement of structural steel, locomotives, rolling stock components, centralized traffic control, electric and signalling equipment, machinery and tools required to manufacture and to carry out a program of modernization and expansion in order to increase the efficiency and volume of passenger and commodity transport operations.

As railways provide more than 90 per cent of the surface transport for industries, agriculture, and other domestic requirements, they are the main arteries of transport. Railway expansion and modernization has had a high priority in India's economic development program. India has taken effective measures to increase the production of railroad stock, and has made rapid strides to improve and expand transport.

tes including Allahabad, Agra, Dehra Dun, Gorakhpur, Jhansi, Varanasi, Kanpur and Lucknow.

USAID financed the training of fifteen participants in the United States for a total of 89 man-months. In addition, under a related project titled Trade Union Development, three additional participants for Uttar Pradesh were sent for training in the United States for a total of 16 man-months.

Uttar Pradesh was one of the states which participated in this countrywide program of railway expansion and modernization. One participant from the State went abroad for USAID sponsored training for a total of 3 man-months.

benefiting the State of Uttar Pradesh (continued)

Projects and Activities with Countrywide Objectives

State Participation and Benefits

Since 1953, USAID has provided massive assistance to Indian railways totalling \$258,549,000 (loan \$229,224,000 and grant, \$29,325,000) to enable it to carry out its planned program of modernization and expansion. In addition, the U.S. Export-Import Bank has advanced to the Indian Railways a loan of \$48,750,000 for the same purpose. The USAID assistance included advanced training facilities in the United States for approximately 132 Indian railway officials from the high and middle levels of management.

Aviation Ground Facilities (FY 1955 - FY 1962): To assist in expanding and modernizing aviation ground facilities and aeronautical communication services in order to provide all-weather aid to high altitude aircraft. Total assistance ; \$2,879,000 and Rs 88,000.

Under the project VHF Omni-directional Radio Ranges (VOR) were installed at the Lucknow and Allaha-bad airports for safe aircraft movement in all-weather conditions; the latter also received Radar, radio teletype and miscellaneous electronic equipment. Four participants from the State received advanced training for a total of 24 man-months in the United States concerning the operation of the equipment.

Industry

Acquisition and Distribution of Iron and Steel (FY 1952 - FY 1958) The objectives of the project were: (1) to help increase food and agricultural production by making available to farmers improved agricultural implements such as steel-point ploughs, spike tooth harrows, steel cart-tires, irrigation devices, etc., (2) to make steel available for the replacement, and rehabilitation of railways, and (3) to stimulate general industrial activity in the country.

Uttar Pradesh was one of the States which benefited from this country-wide program for increasing agricultural and industrial production.

Countrywide projects and activities

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Approximately 459,280 tons of steel products were procured and distributed to several Indian manufacturers and state governments. Total USAID assistance through FY 1958 was: grant \$50,394,000 and loan \$10,399,000. These figures do not include the allocation of over \$85 million for the import of iron and steel under AID Non-Project Loans.

National Productivity Council (FY 1959 - FY 1966) : To assist the GOI through the National Productivity Council to establish and operate a national program for increasing industrial efficiency. USAID provided training facilities for 300 industrial technicians and managers and seven-week observation tours in the United States and elsewhere for 43 productivity teams with six to seven members each. Operating through the National Productivity Council, U.S. technicians organized and conducted training courses, seminars, and demonstration workshops within India. Total assistance: \$ 3,337,000 and Rs 7,898,000. In addition, GOI allocated Rs 353,000 from PL 480 grant funds to the project.

In Uttar Pradesh, at Agra, Lucknow, Gorakhpur, Kanpur, Rampur and Meerut, the U.S. advisors conducted four series of training courses for 14 weeks in which 74 of the State's industrial management personnel participated. In addition, USAID financed the training of 36 participants from the State for a total of 192 man-months in the United States and also a seven-week observation tour of the United States and other countries for 24 participants.

Oil and Gas Commission (FY 1958 - FY 1961) : To assist the GOI in raising the competence and efficiency of the Oil and Gas Commission by providing advisory services of a U.S. consultant and training in the U.S. for Indian participants. Total assistance: \$ 106,000 and Rs 65,000.

USAID financed the training of eleven participants for a total of 89 man-months in the United States.

Assistance to Industrial Research and Technical Service Organizations (FY 1954- FY 1957) : To provide technical assistance in strengthening research organizations and technical services departments concer-

USAID provided equipment worth \$1,026,003 to the Survey of India, Dehra Dun and the Central Drug Research Institute, Lucknow (various

benefiting the State of Uttar Pradesh (continued)

Projects and Activities with Countrywide Objectives

State Participation and Benefits

ned with increasing industrial production. Thirty-seven Indian participants received training in the United States and commodities worth \$2,945,000 were supplied. Total assistance: \$3,011,000 (grant \$2,522,000 and loan \$489,000).

Building Materials Development (FY 1953 - FY 1958): To promote development of building materials and low-cost housing and to study slum clearance. Total assistance: \$199,000.

Geological Survey of India (FY 1958 - FY 1962): To assist the GOI, in surveying and exploring mineral deposits investigating chemical and petrographical determination of mines and ores, and providing technical know-how to successfully exploit ground water resources. Assistance included services of U.S. Geological Survey technicians, training of participants in the United States and commodities to support the demonstration and training of program of technicians. Total assistance: \$537,000 and Rs 38,000.

Power

Technical Services in Water and Power Development (FY 1952 - FY 1962): To assist the GOI in the development of its multipurpose river basin program, irrigation, flood control, inland waterway navigation and electric and power generating and transmission. Thirty-six U.S. technicians and consultants provided 41 man-years of services, 108 Indian engineers received training in the United States, and technical books and radio gauge equipment were provided under the project. Total assistance: \$1,076,000 and Rs 488,000.

commodities valued at \$71,514) to help develop India's basic research organization.

USAID provided one year's service of a technician and equipment, including books and films costing \$167,000 to the Central Building Research Institute, Roorkee.

USAID provided training facilities for four State's participants for a total of 52 man-months in the United States.

In addition to U.S. specialist services, USAID financed the training of eleven participants from Uttar Pradesh for a total of 81 man-months.

Countrywide projects and activities benefiting the State of Uttar Pradesh

*Projects and Activities with
Countrywide Objectives*

*State Participation
and Benefits*

C. PL 480 RUPEE ASSISTANCE FOR DEVELOPMENT ACTIVITIES

Higher Technical Education: To develop regional engineering colleges and other facilities for higher technical education. As of December, 1970, the GOI had allocated Rs 431,300,000 from PL 480 funds (grant Rs 165,600,000 and loan Rs 265,700,000) for their support.

The Engineering College at Allahabad received assistance.

Elementary Education: In support of its elementary education program throughout the country, the GOI had allocated from PL 480 funds a total of Rs 1,211,400,000 (grant Rs 783,100,000 and loan Rs 428,300,000).

Assistance has been provided for development of elementary education in Uttar Pradesh.

Primary Health Centers: The GOI is establishing primary health centers throughout the country, each to serve about 60,000 persons. Rs 165,500,000 had been allocated from PL 480 funds (grant Rs 105,500,000 and loan Rs 60,000,000) for their establishment through December 31, 1970.

875 primary health centers are functioning in the State of Uttar Pradesh.

Smallpox Eradication: Rs 130,200,000 from PL 480 funds (grant Rs 102,900,000 and loan Rs 27,300,000) were allocated to the nationwide smallpox eradication program.

The program began to operate in Uttar Pradesh in 1962 and since that time steady progress has been made. As of June 1969, 87,717,178 revaccinations and 20,215,207 primary vaccinations had been performed.

Craftsmen Training: To expand facilities for the training of craftsmen through seven Central and 357 Industrial Training Institutes. As of December 31, 1970, the GOI had allocated from PL 480 funds Rs 629,800,000 (grant Rs 394,600,000 and loan Rs 235,200,000).

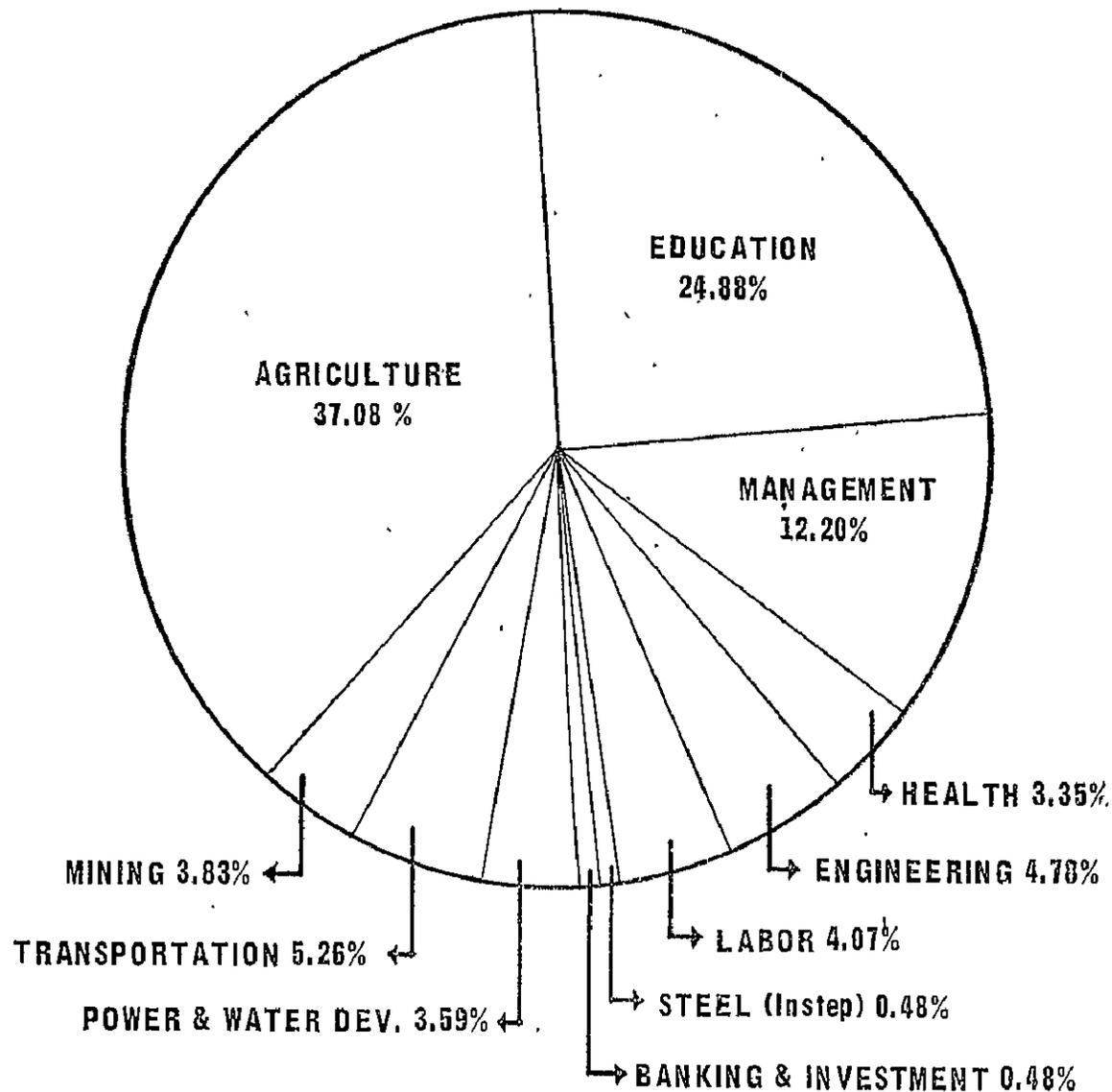
Forty-nine Industrial Training Institutes including those at Allahabad, Agra, Jhansi, Varanasi, Lucknow and Kanpur have benefited under the program.

**UTTAR PRADESH
418 PARTICIPANTS**

RETURNED PARTICIPANTS

1951 THRU December 1970

AGRICULTURE	
EXTENSION	30
LAND AND WATER	21
CROP PRODUCTION	11
LIVESTOCK	7
FERTILIZER	5
RICE RESEARCH CONTRACT	2
AGR. UNIV. DEV.	7
	<u>9</u>
	155
EDUCATION	
EDUCATION	99
SC. EDU. IMP. (NSF)	5
	<u>5</u>
	104
HEALTH	
HEALTH	7
NURSING	2
FAMILY PLANNING	5
	<u>5</u>
	14
MANAGEMENT	
PERSONNEL	15
INDUSTRIAL	22
GENERAL	14
	<u>14</u>
	51
ENGINEERING	
NUCLEAR	1
INDUSTRIAL	19
	<u>19</u>
	20
LABOR	17
TRANSPORTATION	22
STEEL (Instep)	2
POWER & WATER DEV.	15
MINING	16
BANKING & INVESTMENT	2
	<u>2</u>
	418



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