



*The CIFRI Newsletter Wishes Its Readers
A Happy And Prosperous 1978*

Volume 2

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Number 2

PARLIAMENT MEMBERS VISIT CIFRI

Members of the Parliamentary Consultative Committee (1977-78) on Agriculture and Irrigation visited the Central Inland Fisheries Research Institute, Barrackpore, the centres of the All India Co-ordinated Research Projects on 'Composite Fish Culture and Fish Seed Production' and 'Air-breathing Fish Culture' at Kalyani and that of the Operational Research Project at Krishnanagar in West Bengal on October 10-11, 1977. In Orissa, the Members of the Parliamentary Consultative Committee visited Freshwater Aquaculture Research & Training Centre at Dhauli, Trainers' Training Centre & Krishi Vigyan Kendra at Kaushalyaganj, the Cuttack Research Centre of the Freshwater Aquaculture Division and Puri Centre of the CIFRI/IDRC Rural Aquaculture Project on October 13-14, 1977.

Dr. V. G. Jhingran, Director while welcoming the honourable Members at the Institute briefly explained the organisational set-up, objectives and the pioneering research accomplishments of the Institute. The Members of the Committee discussed individually with Scientists the progress of research on specific problems

allotted to them. On the eve of their departure from the Institute, Shri R. N. Kushwaha, MP, on behalf of the team, thanked the

developing labour intensive, low cost and high yielding technologies of fish farming for development of inland fish farming in



Dr. V. G. Jhingran, Director CIFRI (back towards the camera) in discourse with the MPs.

Director, the Scientists and the Staff of this Institute for the efficient conduct of their tour.

The Committee Members were highly impressed by the efforts made at the Central Inland Fisheries Research Institute in

India. The text of the note submitted by the Committee to the Hon'ble Minister for Agriculture and Irrigation, Government of India, Shri S. S. Barnala, is as follows :

a) A system of intensive fish

culture in freshwater ponds and tanks called composite fish culture. This combines Indian major carps, rohu, catla and mrigal and the Chinese carps, silver carp, grass carp and common carp.

b) A system of the air-breathing fish culture in derelict waters such as those of swamps and marshes. This involves culture of magur, singhi, koi and murels.

c) A system of brackishwater fish and prawn culture. This involves culture of shrimps, mullets and bhekti. Shrimps are highly priced export commodity.

d) A system of integrated rural development especially combining pond fish culture with duck, pig and poultry rearing; further integrating it with agriculture, horticulture and sericulture, also involving use of treated sewage.

e) A system of fish breeding by pituitary hormone injection. This imparts a measure of control on fish reproduction. The Institute has received several awards including a first international award for a film based on this technology.

2. The technology of composite fish culture has been applied by 91 private fish culturists of Bengal with revelingly outstanding results. Senior State Government officials of the State and staff of CIFRI have brought out a joint publication on this work. The Institute has also brought out a bulletin on 138 case studies of composite fish culture in different agro-climatic zones of India.

3. While the Committee is pleased to note that great strides have been made in inland fish-

diately develop programmes for spread of freshwater fish culture in different States of the country.



MPs witnessing netting operation in the composite fish culture pond at Kulia Fish Farm, Kalyani (West Bengal).

eries research and results of great developmental values have been obtained, it is disappointed to note that the application of research by the Department of Agriculture, Government of India, and the States has greatly lagged behind. The effort of West Bengal Government in promoting the spread of freshwater aquaculture in their State is in the right direction. The great gulf between the progress of research on the one hand and of development of inland fisheries on the other, deprived the country of the benefits of research in inland fisheries. This situation is untenable and must be immediately removed.

4. The Ministry of Agriculture, Government of India and the State Governments should imme-

Since the technology of composite fish culture is fully tried and time tested and is revolutionising in its potential, failures in achieving targets laid down should not go unpunished.

5. The following steps may be adopted for giving the country the benefits of research in the field of inland fish culture.

a) Every existing State Government fish farm in each State of the country should be brought under intensive fish culture system.

b) Additionally atleast one modern freshwater fish farm, about 500 acres in area, be established in each State wherein fish seed and table-sized fish production should be integrated with animal husbandry, poultry



Shri M. Sinha, Scientist-in-Charge, showing the MPs a grass carp raised in the composite fish culture pond at Kalyani (West Bengal).

and horticulture. For this purpose, the Central Fisheries Corporation, which hitherto is merely a marketing corporation should be converted into a production corporation. These farms will, in addition to producing stocking material and fish, help in extending pisciculture in each State.

c) Each maritime State should additionally have atleast one brackishwater fish farm, about 250 acres in area, on the same pattern as the freshwater fish farm.

d) The infrastructure required for such a massive development such as establishment of seed production centres in the form of hatcheries, assured supply of fertilisers and feeds should be safe-guarded against.

e) Each State should survey to locate wetlands, low-lying areas, swamps and marshes where fish farms provided with protective embankments should

be constructed and fish farming carried out along scientific lines.

f) A Krishi Vigyan Kendra for inland aquaculture set up in each State at the sites of the Central Fisheries Corporation fish farms.

g) The country has an extensive network of canals. A system of fish culture to utilise running

water fish culture, like the one existing in Japan, should be developed.

h) The irrigation command areas should be linked with fresh-water fish culture especially fish seed production.

i) The ditches on either side of the railway lines and highways throughout the country should be developed for fish culture. The Railway Ministry and the Central and State Public Works Departments may take immediate steps in this regard.

j) The fish farmers' development agency should be made much more purposeful and be effectively instrumental to bring home the technology of composite fish culture to the fish farmers.

k) Inland Fisheries is a labour intensive rural occupation and offers tremendous scope for integrated countryside development which can generate wealth in villages and improve



Netting demonstration at Operational Research Project Pond at Krishnanagar (West Bengal). The visiting MPs are also seen in the picture.

the nutritional status of the protein starved people of India. It is, therefore, essential that the Ministry of Agriculture has full-fledged Commissioner exclusively for inland fisheries.

l) The Planning Commission has no Consultant for inland fisheries development and it is essential that the body has subject matter specialist as a Consultant for inland fisheries.

m) In view of the revolutionizing role of inland fisheries in India's rural development, the Central Exchequer should allot substantial sums of money to the State Governments for their scientific inland fish culture development.

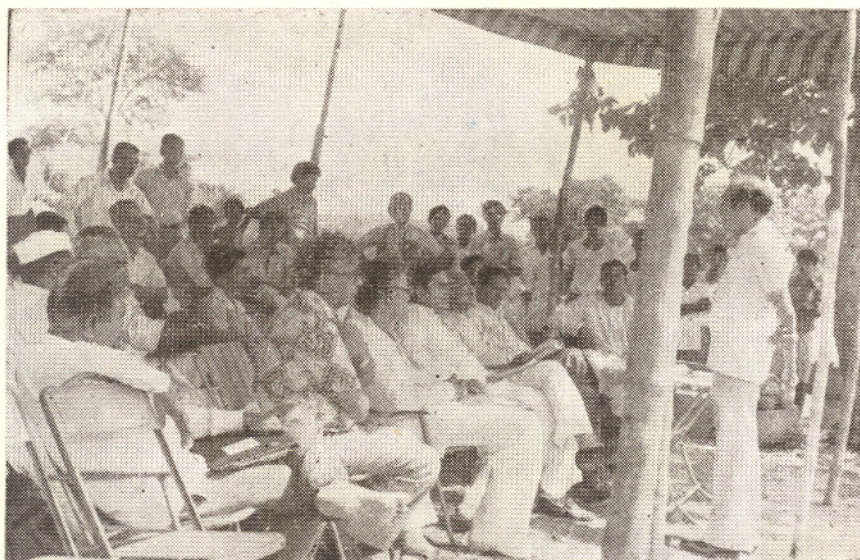
n) The Centre and States should greatly strengthen their inland fisheries extension activities.

DR. V. G. JHINGRAN VISITS INDONESIA

Dr. V. G. Jhingran, Director, Central Inland Fisheries Research Institute, Barrackpore, on an assignment as a Consultant to the World Bank, Mission II, visited Indonesia during December 1-27, 1977.

SEAFDEC OFFICIALS VISIT CIFRI

A 6-member team of the South East Asian Fisheries Development Centre (SEAFDEC) visited the Institute's Headquarters on 9th November, 1977. They also visited the centres of the Co-ordinated Research Project at Kalyani, Operational Research Project at Krishnanagar and Brackishwater Fish Farm at Kakdwip, West Bengal during November 10-11, 1977.



Shri B. K. Sharma, Scientist-in-Charge, explaining the MPs the concept and scope of integration of aquaculture and animal husbandry at Anjana Fish Farm, Krishnanagar (West Bengal).

RESEARCH NEWS

SUCCESSFUL POND CULTURE OF MACROBRACHIUM ROSENBERGII

The Kakinada Research Centre of the Institute conducting investigations on the standardisation of prawn culture techniques, has succeeded in raising notable crops of giant freshwater prawn, *Macrobrachium rosenbergii*, in two successive experiments from the laboratory raised second generation seed. In one of the experiments, a freshwater pond (0.02 ha) at Balabhadrapuram (A.P.) stocked with 319 specimens (i.e., @ 15,590/ha) of *M. rosenbergii* (av. size : 85.90 mm/6.14 g) yielded gross and net productions to the tune of 11.55 (c. 577.7 kg/ha) and 9.59 kg (c. 479.7 kg/ha) respectively in 4 months with remarkably high survival rate (89%). 284 prawns recovered at the end of the experiment

showed an average size of 157.8 mm/40.7 g. The management measures included pre-stocking, fertilisation of pond with 480 kg of cattle shed manure followed by liming and supplementary feeding with minced foot of *Pila*, rice-bran and tapioca separately @ 500-1,000 g/day. To avoid wastage of feed, an important cost factor, quantum of supply was restricted depending upon the magnitude of un-utilised feed left on the planks and earthen pots installed in the shallower zones of the pond as food containers. The coefficient of the body weight gained was highly encouraging (1 : 9.57). A few milkfish (*Chanos chanos*; 2-3 cm), introduced in the pond after one month of prawn stocking, showed

encouraging growth (av. 18.7 cm/50.0 g).

In the subsequent experiment, the gross and net productions obtained from the adjoining pond on stocking 303 seeds of the same species (av. size: 67.05 mm/2.64 g) were 12.04 (c. 602.05 kg/ha) and 11.21 kg (c. 560.55 kg/ha) respectively in 4½ months with equally high rate of survival (81.12%). Management measures remaining the same, artificial feeding was switched on mainly to vegetarian diet comprising coconut oilcake, broken rice, tapioca and sweet potato without any variation in the feeding procedure.

The productions thus obtained in very short periods significantly enlight the possibilities of achieving a target of 4,000 kg/ha under higher stocking densities with further improvement in the culture technique, efforts for which are under way.

INDUCED BREEDING OF MAGUR IN PADDY FIELDS

Induced breeding of the air-breathing catfish, *Clarias batrachus*, commonly known as 'magur' has been successfully achieved at Kalyani Centre of the All India Co-ordinated Research Project on Air-breathing Fish Culture in collaboration with the State Directorate of Fisheries. In monsoon, about

11,000 fry of magur could be produced in specially designed paddy plots (3×2m) from three sets of brood fish. This offers the possibilities of producing magur fingerlings by using paddy field for short duration during which the pesticide operations can be suitably oriented without interfering with the traditional operations.



MPs being demonstrated netting of air-breathing fishes at Dhakordah Fish Farm, Kalyani (West Bengal).

PADDY-CUM-FISH CULTURE

Culture of fish alongwith deep water paddy is likely to yield better returns to the agriculturists since incidental to paddy some fish can also be produced. An experiment along this direction was initiated by the CIFRI to establish a system of paddy-cum-fish culture by renovating a paddy plot (0.75 ha) at Khardah, West Bengal. In this experiment, the waterway for fish culture is of the shape of

a trapozoid canal (0.27 ha) running all along the perimeter of the agriculture field. The canal thus constructed may enable to extend the rearing period of stocked fishes to a desired period. The other advantage of the canal is the use of its water for irrigating the paddy plot for raising additional crop of paddy or pulses during summer months. A deep water pest resistant hybrid paddy ('JALADHI-II') was sown and the

Indian major carps (catla, rohu and mrigal) were stocked @ 6,000 fingerlings/ha. On the basis of sampling done after six months of rearing, when stocked fishes attained average weights of 220, 120 and 100 g in respect of catla, rohu and mrigal, an estimated production of 1,200 kg/ha/8 months of fish is expected besides, a production of 1,000 kg/ha/6 months of paddy already obtained.



Dr. M. S. Swaminathan, Director-General, ICAR, accompanied by Dr. V. G. Jhingran, Director, CIFRI inspecting the paddy-cum-fish culture farm of the Rahara Research Centre (West Bengal).

Participations In Exhibitions

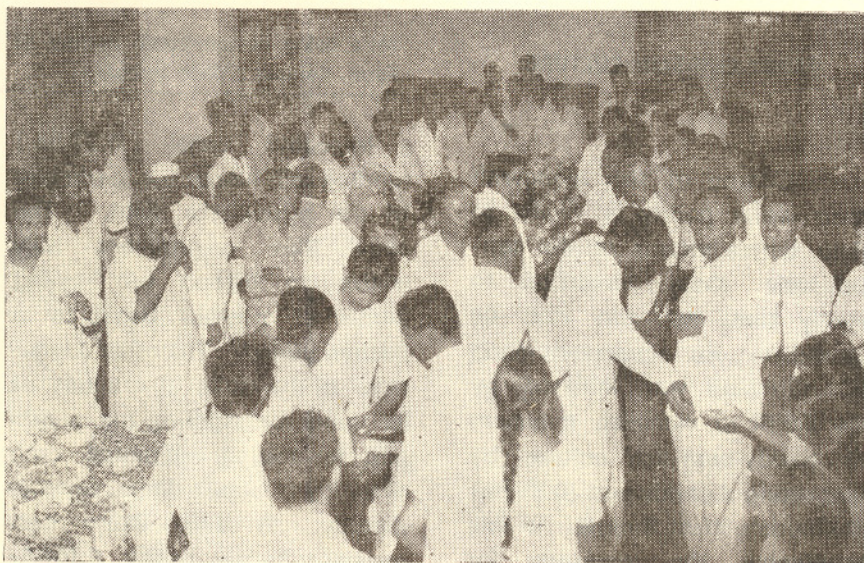
The Institute participated with exhibits such as posters, models, charts, blow up photographs and fishes, both preserved and alive, in Agri Expo '77 Exhibition held at New Delhi during November-December and Science Exhibition at Allahabad during November, 1977. The Institute's pavilion at the Agri Expo '77 Exhibition drew the attention of a large crowd. Self explanatory and illustrated extension pamphlets on inland fish culture practices were also distributed to the interested persons.

TRAINING FOR UNDP FELLOW

Dr. M. S. Swaminathan Visits CIFRI

Dr. M. S. Swaminathan, Director-General, ICAR visited the Institute on October 7, 1977. During his short stay, Dr. Sawminathan accompanied by Dr. V. G. Jhingran made a trip to Rahara Research Centre where efforts are underway to establish a system of paddy-cum-fish culture by renovating paddy fields. Shri Apurba Ghosh, Scientist S-2 & Officer-in-Charge of the scheme and Shri S. K. Dutta, Botanist, Rice Research Station, Chinsurah, West Bengal, explained to Dr. Swaminathan the concept and the broad scope of the scheme. Dr. Swaminathan expressed his satisfaction over the progress so far made in this direction.

Shri Budiono Matosudarma UNDP Fellow from Indonesia underwent a short term training on inland fisheries at this Institute.

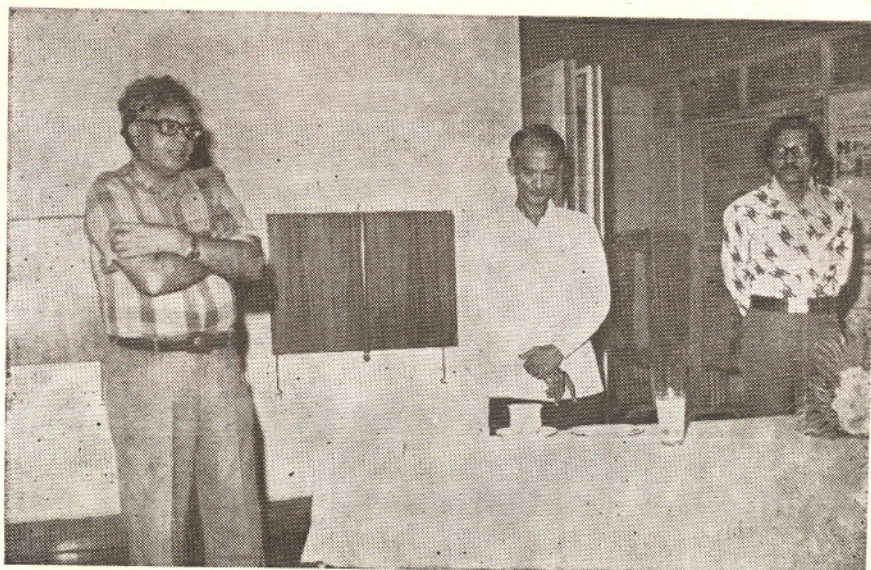


The MPs with staff members of the CIFRI at a tea party.

STAFF NEWS

RETIREMENT

Shri S. N. Chakraborty, Assistant Administrative Officer retired from the services of the Institute on the 30th day of September, 1977. Dr. V. G. Jhingran, Director while addressing the farewell gathering acuminated the abilities and the distinctive qualities of Shri Chakraborty as an efficient administrator and a colleague with high sense of responsibility and cordiality. Shri Chakraborty by virtue of his benign mannarism enjoyed the likings of his fellow colleagues and the staff of the Institute. The Director and the staff of the Institute wish him a happy and peaceful retired life.



Dr. V. G. Jhingran, Director (left) addressing the farewell party of Shri S. N. Chakraborty (centre) who retired on 30.9.1977.

TRANSFERS

The undermentioned transfers were made during October to December, 1977.

Name & Designation		From	To
Shri A. Sengupta	Scientist S-1	Barrackpore	Kakdwip.
Shri C. Saha	Scientist S-1	Barrackpore	Bhubaneswar
Shri G. N. Saha	Scientist S-1	Cuttack	Calcutta
Shri S. R. Das	Scientist S-1	Barrackpore	Krishnanagar
Shri B. C. Jha	Scientist S	Gulariya	Ranchi
Shri Oghar Jally	Fieldman	Badampudi	Cuttack
Shri Dukharam	Fisherman	Bhubaneswar	Ranchi
Shri Jadumari Khatua	Watchman	Cuttack	Ranchi

In addition to above transfers, Shri D. C. Mishra, D.S.F., Department of Fisheries, Government of Orissa who was on deputation under IDRC Project was also relieved of his duties during the period to return back to his parent department.

OBITUARY

The members of the staff of the CIFRI express their deep sense of sorrow at the untimely and sad demise of Shri Harilal, Fieldman of the Allahabad Research Centre of the Institute on 10th December, 1977. May God grant peace to the departed soul.

APPOINTMENTS

Consequent to his appointment as Accounts Officer, Shri P. C. Deb has taken over the charge of the office of Accounts Officer at this Institute on September 23, 1977.

The following persons were appointed during the period October-December 1977.

Name & Designation	Place of Posting
Shri R. K. Halder	Dark Room Assistant
Srimati A. Sengupta	Jr. Clerk
Shri Debesh Chaudhuri	Jr. Clerk
Shri Sukal Bairagi,	Mali
Shri Panchulal Choudhuri	Watchman
Shri Rana Behera	Watchman
Shri Sachindra Mondal	Fisherman
Shri Sital Chandra Halder	Fisherman
	Barrackpore
	Barrackpore
	Gauhati
	Barrackpore
	Rahara
	Dhau
	Kalyani
	Kalyani

MPs signing the visitors book.



AGRICULTURAL RESEARCH SERVICE PROBATIONERS

Sarvashri S. Paul, P. M. Sherief, B. Venkatesh & Kuldeep Singh have been selected for Agricultural Research Service on the basis of the competitive examination of the Agricultural Scientists Recruitment Board, New Delhi. They have joined this Institute and are presently undergoing training.

INDUCTION OF SCIENTISTS TO THE AGRICULTURAL RESEARCH SERVICE

The following Scientists of the Institute have been inducted to Agricultural Research Service with effect from 1. 10. 75 in the grades specified against each.

Name of the Scientist	Grade in the ARS to which inducted
Dr. G. N. Mukherjee	S-1
Shri D. V. Pahwa	S-1
Shri S. K. Mazumder	S
Shri D. K. Kaushal	S
Shri P. Kumaraiah	S
Shri B. K. Singh	S
Shri P. K. Sukumaran	S
Shri N. M. Chakrabarti	S
Shri G. C. Laha	S
Shri A. K. Ray	S

Shri R. N. Kushwaha, MP addressing the staff members of the CIFRI.



Appointment of Technical Personnel (ICAR Technical Service)

On the recommendations of the Assessment Committee of Technical Services, the Director, Central Inland Fisheries Research Institute, Barrackpore was pleased to promote the following Technical Personnel to next higher grade as shown with effect from 1st July, 1977.

From Grade T-II-3 F.F/T. (Rs.425-700) to Grade T₄ (Rs. 550-900)

1. Shri M. D. Pisolkar
2. " T. S. Ramaraju
3. " K. S. Rao
4. " R. C. Singh
5. " S. K. Sarkar
6. " B. K. Banerjee
7. " P. V. G. K. Reddy
8. " S. L. Raghavan
9. " P. K. Pandit
10. " P. R. Das
11. " P. B. Das
12. " A. R. Chowdhury
13. " B. K. Saha
14. " R. N. De

From Grade T-2 F.F/T (Rs. 330-560) to Grade T-II-3 (Rs. 425-700)

1. Shri A. K. Roy
2. " G. P. Bhattacharjee
3. " H. K. Sen
4. " P. M. Abdul Kadir
5. " V. Panigrahi
6. " K. M. Das
7. " Md. F. Rahman
8. " P. S. C. Bose
9. " Bhaskar Ghosh
10. " D. N. Srivastava
11. " Ram Chandra
12. " K. K. Agarwal
13. " N. D. Sarkar
14. " R. C. Satpathy

From Grade T-I F.F/T (Rs. 260-430) to Grade T-2 (Rs. 330-560)

- | | |
|----------------------------|-------------------|
| 1. Shri Ramji Tiwari | 6. Shri Basmadhya |
| 2. " S. Bhattacharjee W/E. | 7. " R. N. Singh |
| 3. " J. C. Saha | 8. " D. Tarai |
| 4. " R. M. Roy | 9. " B. B. Sethi |
| 5. " S. C. Das | 10. " R. S. Negi |

LIBRARY

BRITISH BOOKS PRESENTATION

The Central Inland Fisheries Research Institute thankfully acknowledges the receipt of 285 books on inland fisheries and allied subjects for its Library under the Book Presentation Programme of the Ministry of Overseas Development to the Developing Countries through the kind arrangements of the British Council, Calcutta.

NEW ADDITIONS TO OUR LIBRARY

The undermentioned important books were added to the Central Library of the Institute :-

- Joffe, Jacob S.
Pedology, 2nd ed.
- Varshney, C. K. & J. Rzoska ed.
Aquatic weeds in South East Asia : Proceedings of a Regional Seminar on Noxious Aquatic Vegetation, New Delhi, 12-17 December 1973.
- Sunshine, Irving ed.
Handbook of analytical toxicology
- Safe, S. & O. Hutzinger
Mass spectrometry of pesticides and pollutants
- Bond, Richard G. & Conrad P. Straub
Handbook Environmental Control Vol. II : Solid Waste; Vol. III : Water supply and treatment; Vol. IV : Wastewater treatment and disposal
- Smith, F. G. Walton & Frederick A. Kalber eds.
Handbook of Marine Science. Vol. II.
- Hughes, G. M. ed,
Respiration of amphibious vertebrates
- Kurian, C. V. ed.
Contributions to estuarine biology (Papers presented at the Third All India Symposium on Estuarine Biology, Cochin 1975)
- Oglesby, Ray T., Clarence A. Carlson and James A. Mocann ed.
River ecology and man
- Neuhaus, Otto W. & John E. Halver ed.
Fish in Research
- Russell, E. W.
Soil Conditions and Plant Growth, 10th Edition

RECENT PUBLICATION OF CIFRI

- Murshed, S. M., S. N. Roy, D. Chakraborty, M. Ranadhir and V. G. Jhingran (1977)
Potentials and problems of composite fish culture technology in West Bengal. [*Bull. Cent. Inland Fish. Res. Inst., Barrackpore*, No. 25, 11 p. (*Mimeo.*)]

GRANT OF ADVANCE INCREMENTS

The undermentioned Technical Personnel of the Institute have been granted advance increments as mentioned against their names.

Shri J. Ghosh	T-4	(Rs. 550-900)	Three
" D. R. Rao	T-II-3 F.F/T	(Rs. 425-700)	Three
" N. K. Srivastava	T-I-3	(Rs. 425-700)	Three
" S. L. Kar	T-II-3	-do-	Three
" H. S. Mazumder	-do-	-do-	Three
" A. R. Mazumder	T-II-3	-do-	Three
" A. R. Paul	T-2	(Rs. 330-560)	Three
" K. S. Banerjee	-do-	-do-	Three
" N. C. Mondal	-do-	-do-	Three
" N. N. Mazumder	-do-	-do-	Three
" S. P. Ghosh	-do-	-do-	Two
" B. R. Dutta	-do-	-do-	Three
" A. K. Ekka	-do-	-do-	Two
" Alok Sarkar	-do-	-do-	Three
" D. P. Verma	-do-	-do-	Three
" B. D. Saroj	-do-	-do-	Three
" S. Krishnan	T-I F.F/T	(Rs. 260-430)	Three
" J. P. Misra	-do-	-do-	Two
" R. K. Langer	-do-	-do-	Three
" M. P. Singh	-do-	-do-	Two
" A. N. Mohanty	-do-	-do-	Three
" G. C. Sahu	-do-	-do-	Three
" N. Sarangi	-do-	-do-	Three
" M. M. Das	T-I-P-E	(Rs. 260-430)	Three
" S. C. Bhowmick	T-I-W.E.	-do-	Three
" K. L. Das	T-I Driver	-do-	Two
" Ranjit Singh	-do-	-do-	Three
" Kishan Deo	-do-	-do-	One
" Camil Lakra	T-I F.F/T	-do-	Two

PROMOTIONS

On the recommendations of the Departmental Promotion Committee the following persons have been promoted to the posts shown against their names.

<u>Name</u>	<u>Promoted to</u>	<u>Name</u>	<u>Promoted to</u>
Shri S. R. Halder	Senior Clerk	Shri S. N. Burman	Lab.-cum-Fieldman
" Jagannath Banerjee	Senior Clerk	" Salekh Chand	Lab. Boy
" N. Behera	Lab. Boy	" R. C. Biswas	Lab. Boy
" Lalit Bahadur	Fieldman	" H. L. Biswas	Daftry

Edited & compiled by B. N. Saigal

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