

GOVERNMENT OF MAHARASHTRA
RURAL DEVELOPMENT DEPARTMENT



REPORT
OF
THE EVALUATION COMMITTEE
ON
APPLIED NUTRITION PROGRAMME

1971

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“ Solving the problem of hunger is not one of greater production but of more equitable distribution and of improving food habits so as to lead to wholesome and nutritious food. All this can undoubtedly be done provided we divert our minds and energies to that end with determination to achieve freedom from hunger for everyone. ”

JAWAHARLAL NEHRU
**(Speech on burning problem of
malnutrition.)**

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CHAPTER I

INTRODUCTORY

Appointment of the Committee

1.1. The Applied Nutrition Programme, which is substantially aided by the Central Government and international agencies like UNICEF, WHO, FAO, etc. was launched in Maharashtra during the year 1965-66 with the initial coverage of 12 blocks under it. New Blocks have been opened every year in a phased manner and upto now in all 88 Blocks have been covered under this programme with an average of 3 to 4 Blocks in each district [see appendix A (I) and (II)]. This programme is transferred to the Zilla Parishads and Panchayat Samitis on agency basis under section 123 of the Maharashtra Zilla Parishads and Panchayat Samitis Act, 1961. Government considered that it was opportune time to take a complete review of the working of the programme for identifying its performance with relation to its weaknesses and imperfections and also find out ways and means to gear up the programme by re-orienting the same on the basis of the programme achievements in respect of its manifold components, viz., (i) Nutrition education, (ii) Horticulture, (iii) Poultry, (iv) Pisciculture, etc. It is against this background that the Committee for Evaluation of Applied Nutrition Programme in Maharashtra was appointed by Government under Government Resolution, Rural Development Department No. ANP. 2469/42275-Q-I, dated the 4th December 1970 with the following personnel :—

1. Dr. N. H. Kulkarni, Deputy Director of Health Services, Poona. Chairman.
2. Shri Jayantrao Shamrao Patil, Principal, Gram-sevak Training Centre, Kosbad Hill, District Thana. Member.
3. Smt. Hirabai Shinde, Agra Road, Nasik. Member.
4. Smt. Rebecca Bhambal, Mount Road, Nagpur. Member.
5. Shri Y. V. Mantri, Block Development Officer (Higher Grade), Igatpuri, District Nasik. Member.
6. Shri V. S. Fadnavis, Under Secretary to Government, Rural Development Department (Incharge of ANP). Member-Secretary.

Change in Chairmanship of the Committee

1.2. Before, however, the actual work of the evaluation could be started, there has been a change in the incumbency of the Chairman on account of the sudden deputation for training abroad of Dr. N. H. Kulkarni. In his place Dr. G. D. Marathe, the then Principal, Public Health Institute, Nagpur, was appointed as Chairman of the Evaluation Committee under Government

Resolution, Rural Development Department No. ANP. 2469/42275-Q-I, dated the 27th January 1971. After his retirement also from Government service with effect from 12th April 1971, Dr. Marathe continued as the Chairman of the Evaluation Committee, as per Government Resolution, Rural Development Department No. ANP. 2469/42275-Q-I, dated the 13th May 1971.

1.3. Terms of Reference laid down by Government *vide* Government Resolution, Rural Development Department No. ANP. 3370-Q-I, dated the 29th December 1970 are reproduced below :—

- (1) How far have the objectives and targets as envisaged in the Subsidiary Plan of Operations No. 10 (Maharashtra) to the Master Plan of Operations for an Applied Nutrition Programme in India been fulfilled in Maharashtra ?
- (2) What is the impact of the programme on the people and also general outlook of the people towards the programme ?
- (3) Whether the various production components are taken care of and maintained properly with a view to making it a self-supporting programme after the project period ?
- (4) Whether expenditure incurred so far on the different components is commensurate with the results achieved ?
- (5) Whether funds spent are adequate ?
- (6) What specific changes, additions or alterations can be suggested in the production, education, training and demonstration programme under Applied Nutrition Programme ?
- (7) Is the follow-up of training and extension done ? Is it sufficient ?
- (8) Is the participation of the people and voluntary organisations in the programme satisfactory or is it lacking ? If lacking, what remedies can be resorted to ?
- (9) Whether proper technical guidance is made available from time to time for implementation of the programme ?
- (10) Do you consider that the Programme has really gone a long way in changing the dietary habits of the masses and consuming nutritiously balanced food ? If not, how could it be achieved otherwise ?
- (11) Is assistance being availed for this programme from other Government Departments and voluntary institutions (All-India bodies and local Institutions) ? If not, what can be done in the matter ?
- (12) Any additional terms of reference which the Committee may like to add to the above list.

Tenure

1.4. The Committee was initially appointed in December 1970 for a period of four months to go round the ANP Blocks in four Divisions and the Training Institutions selected under the Plan of Operations for Maharashtra and to interview the officials and non-officials connected with the implementation of the ANP. However, because of the complexity of the issues we were required to examine and on account of several unforeseen circumstances, viz. (i) the sudden change in the incumbency of the Chairman of the Committee, (ii) illness of two members and (iii) difficulties in visiting the interior ANP villages during the monsoon, the Committee could not adhere to the initial time limit prescribed. Further, in view of the wide coverage of the ANP Blocks and also due to location of these Blocks in different agro-climatic regions, it was considered desirable to cover as many ANP Blocks/villages and also Training Institutions, as possible. In the circumstances the time limit for submission of the report to Government had to be got extended from time to time and finally upto 31st October 1971. We are grateful for this extension of the period.

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CHAPTER II

MODUS OPERANDI OF EVALUATION, THE METHODS ADOPTED FOR FIELD VISITS AND THE QUESTIONNAIRE

2.1. The keynote of evaluation is the assessment of programme performance in relation to its total objectives. For the purpose of detailed study, the committee adopted a specific *modus operandi*.

One suggestion that sample surveys be conducted in two ANP Blocks from each of the four Divisions, was placed before the Committee. But in view of the important nature of the terms of reference and wide coverage of the ANP blocks and also due to location of these blocks in different agro-climatic regions, the Committee considered it necessary to study in detail the working of the ANP blocks. For this purpose the Committee studied the following material, copies of which were made available to all the members in its preliminary meeting held at Bombay on 9th March 1971 :—

(a) A copy of the Hand Book on ANP published by Rural Development Department.

(b) Marathi literature on ANP appearing in the "Lok Rajya", dated the 15th August 1970.

(c) Copies of the two notes prepared by Rural Development Department on ANP in Maharashtra State giving its complete background.

(d) A copy of the revised scheme on Poultry sanctioned by Government.

In this State, there are blocks that have made satisfactory progress as well as blocks having difficulties like non-availability of land, irrigation facilities in implementing the ANP. There are blocks having different agro-climatic conditions and blocks having Pisciculture activities both coastal and inland. It was, therefore, decided to study the working of different types of blocks by paying on the spot visits to as many blocks and ANP villages as possible. Training is given to various categories of personnel who are associated with implementing ANP. In view of this, it was necessary to visit Training Institutions also while visiting the adjacent ANP blocks.

2.2. The ANP being implemented through the Zilla Parishads, the various functionaries like Commissioners, Deputy Commissioners, Presidents of Zilla Parishads, Chairmen, Agriculture Committees, Chief Executive Officers/Deputy Chief Executive Officers, Parishad Agriculture Development Officers, Planning Officers, District Animal Husbandry Officers, District Health Officers, Chairmen of Panchayat Samitis, Block Development Officers of Panchayat Samitis, Extension Officers, Sarpanchas of Village Panchayats, Gramsevaks, Gramsevikas, School teachers, members of Mahila Mandals and Yuvak Mandals, etc. are involved in the programme. The various problems encountered in implementing the scheme had to be discussed with authorities at the divisional/district level as well as block/village

level while visiting blocks. A statement showing the field visits of the Committee is enclosed (Appendix B). The Committee visited 18 Zilla Parishads, 35 ANP blocks, 50 ANP villages, 4 Training Institutions under ANP, 2 Central Hatcheries, All-India Radio, Poona and 3 Seed Farms. The evidence given by the different personnel on the spot was recorded.

2.3. Detailed discussions were also held with the representatives of the Heads of Departments, viz., Director of Agriculture, Director of Animal Husbandry, Director of Fisheries, Director of Education, Director of Health Services, Dy. Commissioners of Divisions, Regional Lady Project Officers and their evidence was also recorded by the Committee before formulating its views.

2.4. Considerable amount of expenditure is involved on Horticulture. The feeding programme depends mainly on Horticulture. We, therefore, paid on the spot visits to ANP School/community and Kitchen gardens in the villages. Wherever possible opportunity was also taken to see whether wells were completed, whether adequate water was available during summer season, working of pumping sets, cropping pattern and plantations, etc. Individual poultry units as well as poultry units set up by Village Panchayats were also seen. Enquiries were also made about mortality of birds and profits derived from them.

2.5. Realising that in view of the wide coverage of ANP blocks/villages, which are about 88/880 in number, the Committee felt that it will not be able to consult each individual/office bearer connected with ANP. We, therefore, prepared a questionnaire based on the terms of reference (in English and Marathi) and sent it to all concerned (A copy of questionnaire will be found at Appendix C). The questionnaire was divided into four parts. Part I of the questionnaire was meant for the State/Divisional/District/Block level authorities connected with the implementation of the programme viz., the Divisional Commissioners, Deputy Commissioners, Chief Executive Officers, District Health Officers, District Animal Husbandry Officers, Agriculture Development Officers of Zilla Parishads, Presidents of Zilla Parishads, Chairmen of Agriculture Committees and Panchayat Samitis, Government Heads of Departments, Principals of Training Centres, Regional Lady Project Officers etc. Part II of the questionnaire was specially designed for ANP villages in the Block while Part III was the family questionnaire. Part IV of the questionnaire was for ANP trained personnel, mainly meant for ground level functionaries, viz, Primary teachers, Gramsevak, Assistant Gramsevak and Gramsevikas etc.

2.6. The position regarding despatch of copies of the questionnaire to concerned authorities and the replies received till 21st August 1971 is as follows :—

| | | | No. of copies despatched | No. of replies received |
|---------------------------|----|----|-----------------------------|----------------------------|
| Part I (Fully bound copy) | .. | .. | 400 | 61 |
| Part II | .. | .. | 792 | 268 |
| Part III | .. | .. | 2,552 | 805 |
| Part IV | .. | .. | 1,672 | 523 |

Since the experience was that very few authorities had sent replies by the 21st August 1971, the evidence of the implementing authorities viz., Deputy Commissioners, Presidents of Zilla Parishads, Chief Executive Officers, Chairmen, Agriculture Committees, Chairmen, Panchayat Samitis, Block Development Officers, etc. during the Committee's visits which was recorded by unstructural interviews has been made use of while preparing the report. The replies received from the respondents were also analysed by the staff of the Committee and discussed in the Committee's meetings.

2.7. As a result of the austerity measures adopted by Government during the financial year 1971-72, the Committee was advised to curtail its tours and field visits. Accordingly, the Committee decided to cut short subsequent tours and finalise the report after visiting 18 districts, which gave a fairly comprehensive picture of each agro-climatic region. To have a meaningful evaluation study, the co-operation of the field staff and other officials connected with the ANP at State, District and block level is necessary and the Committee was happy to get full co-operation and support from all concerned quarters.

2.8. We would like to thank the Deputy Commissioners of Divisions, Heads of Government Departments, the Station Director, All-India Radio, Poona, the Chief Executive Officers of Zilla Parishads, Chairmen of Panchayat Samitis, the Regional Lady Project Officers and Sarpanchas of the villages, which we visited for the arrangements which they had so kindly made. We would, also like to thank all the officers and office-bearers of the Panchayati Raj Institutions who met us for very free and frank exchange of views on the subject of our evaluation.

2.9. In this context, we would also like to place on record our high appreciation of the strenuous and sincere work undertaken by the Member-Secretary, Shri V. S. Fadnavis, throughout the course of our visits and deliberations. His detailed knowledge and experience of the working of the Applied Nutrition Programme in the State and also the financial and administrative aspects of the Panchayati Raj bodies were an asset to us and the readiness with which they were placed at our disposal considerably lightened our task.

2.10. We would also like to place on record our deep sense of gratitude for the quite considerable amount of spade work which was done by the Rural Development Department to facilitate our study. In particular, we would like to mention Sarvashri W. D. Mehta, Superintendent, V. P. Shahane, Assistant and B. N. Nadpurohit, Stenographer, for their sustained hard work and diligence.

CHAPTER III

BACKGROUND OF ANP AND SUBSIDIARY PLAN OF OPERATIONS

3.1. The programme of ANP, assisted by the UNICEF, FAO, WHO represents the first systematic attempt on a significant scale to develop a co-ordinated and comprehensive programme of nutrition education and training in the production, preservation and consumption of nutritiously valuable foods. Considering the large deficiencies in the country in respect of foods containing the protective elements of proteins, minerals and vitamins, recognising the need for incorporating well-defined nutritional objectives in the food and agricultural policies of the country and being convinced of the importance of education and training leading to the production and consumption of nutritiously valuable food materials with a thoroughly practical orientation suitable to the socio-economic conditions in the rural areas of the country, the Government of India, with the assistance of FAO, WHO and UNICEF have evolved the Applied Nutrition Programme.

The Subsidiary Plan of Operations No. 10 (Maharashtra) to the Master Plan of Operations for an ANP in India was accordingly drawn up by the Government of India.

The Applied Nutrition Programme is basically an educational and production oriented long term extension programme aiming at self-help by the community and designed to eradicate malnutrition in the weaker sections of the rural masses. It is all the more so in a developing country like ours where the diet composition permits only a limited choice. The existing diet patterns are deficient in many respects. The programme has three different components, viz., training, food production and consumption. The major food production aspects of the ANP are :—

- (i) Horticulture,
- (ii) Poultry, and
- (iii) Pisciculture

(Both coastal and inland fisheries).

3.2. The nutritious food is necessary for the following reasons :—

- (i) satisfying hunger,
- (ii) generating the required temperature in the body,
- (iii) building strength and enthusiasm,
- (iv) developing resistance towards diseases,
- (v) proper development of the body,
- (vi) acquiring proper weight and size to the body,
- (vii) the growth of bones, tissue etc. in the body,
- (viii) recoupment of the energy spent, and
- (ix) the healthy growth of teeth, improvement of eyes and proper development of the brain.

3.3. Salient features of ANP are :—

- (i) To increase the production of nutritious food and with a view to effecting gradual change in the dietary habits of the people,

(ii) To supply nutritious foods to the expectant and nursing mothers and also to pre-school children,

(iii) To give training and demonstration to the functionaries at different levels for purposes of production of nutritious foods.

3.4. The important components of the ANP are :—

(i) *Training*.—Starting of training centres for the members of the Mahila Mandals, Yuvak Mandals, Members of the Panchayat Samitis, Office-bearers of the Gram Panchayats, Primary teachers, Gram Sevaks and Gram Sevikas.

(ii) *Horticulture*.—Establishment of community, school and kitchen gardens for demonstrating the production of green leafy vegetables and fruits and to propagate their consumption through the community school and kitchen gardens and also to establish seed farms, production of good seeds, seedlings and grafts.

(iii) *Poultry*.—Establishment of poultry units for purpose of production of eggs and chicken and for propagating their consumption.

(iv) *Pisciculture*.—To increase the production of fish, both through coastal and inland Fisheries, by giving aid to the fishermen's Co-operative Societies and also to propagate the consumption of fish.

(v) Establishment of demonstration centres for giving demonstrations in the selected villages through the Mahila Mandals and cultivate the habit of taking nutritious food.

3.5. This programme is being implemented through Zilla Parishads and Panchayat Samitis according to the directives of the Government of India and the orders issued by the State Government from time to time. Similarly, arrangements have been made for imparting training under the ANP at the training institutions through which different functionaries are actually given information and training regarding this programme. Members of the Mahila Mandals are given preference and through Gram Sevikas attached to the Block regular demonstrations are held in the villages. More attention has been focussed on the training aspect of the programme. The programme of Applied Nutrition is selective for obvious reasons. The resources at our disposal are limited. The programme, therefore, is primarily restricted to vulnerable sections of the population, viz., women and children and that too on a modest scale. We need to educate not only the people about the nutritious value of foods but also our administrators, distributors and producers about the methods of raising such foods. The ANP is necessary since it seeks to lay the foundation for ensuring healthy growth of our people. Though the programme has a limited scope, its potentialities can never be forgotten. The supporting role of the international agencies is very valuable. The programme, however, is a part of the national plan. We also get central assistance from the Government of India for this programme. The ANP is taken up in selected blocks. In Maharashtra out of 296 Panchayat Samitis, this programme has been taken up in 88 Panchayat Samitis, i.e., in about 880 villages. A map showing the ANP Blocks in the State is appended.

CHAPTER IV

EDUCATION, TRAINING, EXTENSION AND PUBLICITY

4.1. The training aspect of this programme had to be developed in such a manner that it eventually makes an impact at all levels in the community, namely, at State, District, Block and village levels. Nutrition education is the most important component of the Applied Nutrition Programme which is necessarily an extension programme like similar other programmes viz., Agriculture Extension Programmes, Family Planning Extension Programmes. The blue print for training under ANP was drawn up by the Government of India in 1962 by the Sub-Committee on training. The sub-committee listed categories of persons for whom training was to be organised as also the duration of training and set out the details of the syllabi of training to be imparted under ANP. It was assumed, however, that the State Government would effect alterations in the syllabi to suit local conditions. The workshop on ANP training held in 1966 examined the duration and syllabi of the various courses already included in the ANP training schedule. The syllabi recommended was intended to provide only broad guide lines. Before commenting on this important aspect of training, the progress of work done under ANP training was looked into by the Committee. The position regarding training facilities under ANP prevailing in the State is given below :—

Training of trainers

4.2. The training of Regional Lady Project Officers (ANP), Auxiliary Nurses and Midwives, Medical Officers, Sanitary Inspectors, etc. is arranged at the Public Health Institute, Nagpur. The training by way of orientation training courses of two days is also organised at this centre for Chief Executive Officers of Zilla Parishads and Presidents of Zilla Parishads. The Block Development Officers of ANP Blocks were formerly being trained at the respective Gram Sevak Training Centres. However, the Public Health Institute, Nagpur being the well equipped institution suitable for training of trainers, Government decided to train them at Public Health Institute, Nagpur. The training facilities are also provided at this training centre for training of Medical Officers from Madhya Pradesh State. In addition to this centre, the Lecturers of the Gramsevak Training Centres are being deputed for ANP training of two weeks duration at the Provincial Hygiene Institute, Lucknow. The Committee feels that the Public Health Institute, Nagpur, can be expanded and converted into the State Institute of Nutrition Education and Research. Due to the transfer of the Nutrition section attached to Haffkine Institute, Bombay to the Public Health Institute, Nagpur this institute will have double advantage in that it will cater as an Educational Institute and also serve as a campus for research in the field of Nutrition especially for the Nutrition aspect in so far as it relates to the rural conditions.

ANP training of ground level functionaries

4.3. The training of ground level functionaries like Gramsevaks/Assistant Gramsevaks, Primary School Teachers, Extension Officers, Sarpanchas, Youth Club members etc. is being imparted at the following Gram Sevak Training Centres :

| <i>Name of the G. T. C.</i> | <i>Revenue Division</i> |
|---|-------------------------|
| 1 GTC, Kosbad Hill, District Thana .. | Bombay Division. |
| 2 GTC, Manjri, District Pune .. | } Pune Division. |
| 3 GTC, Kolhapur .. | |
| 4 GTC, Gargoti, District Kolhapur .. | |
| 5 GTC, Jalna, District Aurangabad .. | } Aurangabad Division. |
| 6 GTC, Parbhani .. | |
| 7 GTC, Amravati .. | } Nagpur Division. |
| 8 GTC, Buldana .. | |
| 9 GTC, Sindewahi, District Chandrapur.. | |

In addition to this, training of Women workers, viz., Gramsevikas, Mukhya-sevikas, Lady Primary School Teachers, Mahila Mandal members is being arranged at two Gramsevika Training Centres, at Sindewahi (District Chandrapur) and Manjri (District Pune).

Besides the above facilities for training of Women Workers, the Mahila Mandal Members are being trained at the Gram Bal Shiksha Kendra, Kosbad, District Thana. The details of progress of work done in the field of ANP training are given in Appendix D.

Transfer of the Gramsevak Training Centres and Gramsevika Training Centres to the Krishi Vidyapeeths for purpose of ANP training

4.4. Since November 1970, the Gramsevak Training Centres of Manjri and Kolhapur have been transferred to Mahatma Phule Krishi Vidyapeeth along with the Gramsevika Training Centre, Manjri, District Pune. The GTCs at Jalna, Parbhani, Sindewahi and Buldana have been transferred to Punjabrao Krishi Vidyapeeth along with Gramsevika Training Centre, Sindewahi, District Chandrapur. Remaining three Gramsevak Training Centres run by the non-official agencies have not been transferred to respective Krishi Vidyapeeths.

4.5. The scheme of Applied Nutrition Programme at Gramsevak Training Centres and the seed farms scheme have been retained in State Sector. Due to this, there is a dual control. Applied Nutrition Programme being essentially an educational programme needs to be transferred along with the centres to Krishi Vidyapeeths. For effective implementation of training component

under ANP, the Committee recommends the transfer of the above schemes viz. seed farms and ANP Training the respective Krishi Vidyapeeths. The ANP grants should be placed at the disposal of the Agriculture Universities and the same procedure which is adopted while releasing the grants to the statutory University should be adopted.

ANP Extension

4.6. One of the principal objectives of the ANP is to encourage an increased consumption of protective foods, so that the present high proportion of starchy foods in the average diet may be reduced. In order to attain this objective, it is necessary to convince people of the importance of their health of including these foods in their daily diets in adequate quantities and to teach them how some of these protective foods can be produced by their own efforts near their own houses. The need for additional protective foods e.g. pulses, green leafy and other vegetables, root vegetables, eggs and fish is especially great in the diet of members of the vulnerable groups namely children (school and pre-school) and expectant and nursing mothers. This work can be done through Extension methods through the ANP trained ground level functionaries like Gramsevak, Gramsevikas, Mahila Mandals, Members and Rural Youths. For this purpose the ANP Blocks have been associated with respective Gramsevak Training Centres. But the Committee has observed that this important part of the programme is being neglected.

4.7. The follow-up of personnel trained, especially the ground level functionaries is essential. For this purpose much needs to be done by the teaching staff of the GTCs. The follow-up needs to be at frequent intervals.

Duration of training for various categories of functionaries

4.8. Different duration of training is prescribed for different categories. Considering the degree of present attendance, involvement and also the backlog in the category of Medical Officers incharge of Primary Health Centres, the Committee feels that the duration of 21 days training for them should be reduced to 13 days giving stress only on their job responsibility. This will prevent their being away from their job for a longer time.

The Sarpanchas of ANP villages are trained for two days. This period of training is quite insufficient. This question was recently discussed in the State Level Co-ordination Committee meeting on ANP held in June 1971. The State Level Co-ordination Committee considered that one week's duration will be too long in that the Sarpanch who is the key person at the village level may not find it convenient to remain absent from the village for 7 days. It was, therefore, decided to increase the present training period from 2 days to 4 days. The Committee has looked into this aspect of training and while agreeing with this modification feels that there should be only 4 types of duration of training, viz.

- (1) Up to 6 days
- (2) Up to 13 days
- (3) Up to 20 days
- (4) Up to 30 days.

To afford holiday
on Sunday for (1) to (3).

The ground level functionaries who are directly associated with the implementation of ANP need to be given intensive training. The period of training should be in relation to the work the trainee has to perform after his training in actual implementation of the programme. In view of this, it seems necessary to carry out suitable changes in the Annexure 'A' printed on page 88 of the ANP Hand Book. During its visits, the Committee noticed that the category of trainees, viz. Sanitary Inspectors and Auxiliary Nurses and Midwives did not involve themselves in the implementation of the programme. It is, therefore, necessary for them to get themselves so involved. However, no change appears necessary, in the duration of training viz. 60 days for fishermen.

4.9. Considering the nature of the duties and responsibilities, the Regional Lady Project Officers have to carry out, the Committee feels that comprehensive training at the National Institute of Nutrition, Hyderabad, is most essential for them and the existing R.L.P.Os. should be deputed for that training. Also it is necessary to reorient all other Extension staff in all components of ANP viz., the B.D.Os., E. Os. (Agriculture) and (Animal Husbandry), Mukhya Sevikas, Gram Sevikas and Primary teachers with special reference to their job responsibility. The Assistant Deputy Educational Inspectors and the District Education Officers attached to Zilla Parishads should also be given training in ANP. The syllabus for the various courses also need to be modified with reference to the new techniques. It should also provide training in maintenance of accounts.

Village Women Workers—Medium of Extension

4.10. In the context of ANP the women folk from rural area play an important role. By virtue of their unique position in the family, in the house and in the community, women can exert a decisive influence on food habits and thus have a large responsibility for reducing and overcoming malnutrition. This is a truism. But it cannot be too often emphasised. At the present time, the majority of women in rural areas and for that matter, many in the towns, through ignorance, poverty, sometimes as a result of traditional customs and beliefs, are unable to discharge this responsibility adequately or exert this influence with wisdom.

4.11. Mahila Mandals are the excellent agencies for organising applied nutrition work. The difficulty is to make women in houses accept the programme—men follow soon after. The success of Applied Nutrition Programme in some ANP villages as noticed by the Committee, was mainly due to the active interest taken by women in the extension work.

4.12. For this purpose, it is absolutely necessary to create an effective extension machinery amongst the village women folk through the Mahila Mandals. To attract more number of rural women to these Mandals, first and foremost thing necessary is their activation. The Committee during its field visits has come across active Mahila Mandals which by their enthusiasm and realistic work, have made good achievements in taking the ANP ahead. The extension work as envisaged under the Plan can be done through these bodies so that the ANP becomes their usual way of life. For activation of these Mandals the Committee has already made observations in the subsequent chapter.

4.13. Committee recommends that good Mahila Mandals may be given some incentive grants for organising ANP Shibirs of their own. If they are allowed to do this work voluntarily with some financial help it will be a very good media of instruction.

4.14. In these one or two days' Shibirs, exhibition on ANP could be organised. Cooking competitions could be held with a view to educating the people and to introducing new recipes in their diets, keeping in mind the cost, cooking time and palatability of the recipes. Demonstrations showing the methods preparing green leafy vegetables with due conservation of vitamins are necessary. Wild edible shrubs, carrot, greens, beet roots and turnip greens which are rich in iron could be popularised in these demonstrations.

4.15. Several suggestions have been made to the Committee that it should examine the question of including brief courses of study in school on the following topics :—

1. Preparation for participation in production of nutritious foods.
2. Nutrition education.

The Committee examined the suggestion and came to the conclusion that a study of the above two items is essential at the school level, but such a study need not be through the addition of separate subjects to the curriculum but through the work experience.

4.16. The Education Commission has emphasised the importance of participation of school children in the agricultural production programmes. The Commission says (P, 349-14.05) :

“ If agricultural development is to receive the impetus it needs, education for agriculture must become a major concern of the entire educational system of education whose responsibility go beyond the training of specialised personnel. *An orientation towards agriculture must be given in all educational institutions.* ”

We also agree with this view

4.17. The Committee met the Joint Director of Education and the Nutrition Experts of the Education Department. They also agreed that the production of nutritious foods is an important item which should be included as a work experience.

4.18. The majority of persons who were interviewed by the Committee expressed that instead of institutional training it would be advantageous to the women folk in particular if peripatetic training is arranged in the villages and ladies and other members from the neighbouring villages are made to participate in them. There are, of course, obvious advantages of the Institutional training where in addition to the lectures of the experts, garden activities and other demonstrations can be more effective ; whereas in the case of peripatetic training i.e., if the training is arranged at the villages the latter advantage would be lost. However, the Committee feels that there is no objection in trying these peripatetic training camps in selected villages on pilot basis and then extend them to other areas. This would go a long way in creating impact on the minds of the villagers and will also answer the question of backlog which is faced by the institutions to some extent. The training institutions should be asked to hold one or two-day shibirs or peripatetic training in villages, to train the Mahila Mandal members, Youth Club members (both boys and girls especially girls with the age group of 12 to 16 years) Sarpanch, Primary teachers, etc. This new scheme may be worked out on the lines of agricultural mass training. If necessary, the staff requirements of the training centres should be strengthened.

4.19. The training which is at present given to the different categories does not give a full insight of the job they are required to carry out. Thus, this aspect should be borne in mind specifically. This *inter-alia* also involves laying down the job responsibility for each category of personnel who are expected to participate in the programme. We find that an attempt was already made in this direction by Government specifying the job duties *vide* Government Circular, Rural Development Department, No. ANP-1767-2611/69-QI, dated the 30th August 1969. But this, we find, is limited to only few categories. All the categories right from the Chief Executive Officers, District Level Officers, Extension Officers, staff of the Health Organisation including Auxiliary Nurse Midwives and Sanitary Inspectors should be specified with regard to their role and duties in the programme. During the course of our discussion with the Joint Director of Health Services, it was pointed out that the Indian Public Health Association had brought out a booklet under the caption "Basic Health Services : Maharashtra State" which *inter-alia* specified the job description of category of staff at peripheral level in that department. As may be observed, each category of staff is assigned specific duties. The programme is to be implemented through co-ordinated action for which team work is most essential. This is, therefore, necessary to develop team spirit and work in complete co-ordination with colleagues and supervisory staff and the masses. It is suggested that similar publication may be brought out under ANP specifying the job responsibility right from the higher executive officer/officials to ground level functionaries in the villages. This will go a long way in the matter of successful implementation of the programme.

Publicity

4.20. From the birds eye view of the programme which the Committee could have during the course of its field visits and the physical achievements reported (Appendix E.)

it appears that *much remains to be done in the matter of carrying on adequate publicity regarding the ANP in the villages* including the Circulars issued by Government from time to time. The various mass media available for publicity for ANP are Radio, Cinema, Press and other publicity media such as posters and publication of booklets. The advantages of mass media over more conventional methods of Nutrition education are :—

- (1) A large number of people can be reached at relatively little cost.
- (2) The method of instruction is easy to control.
- (3) It reaches the most influential member of the household.
- (4) Information in the Press or on the air tends to have a special kind of authority.
- (5) The audience can be motivated to desire certain changes by careful insertion of ideas into programmes of entertainment.

Radio Support

4.21. The Committee visited AIR Poona and took note of the efforts made by Government in collaboration with the All India Radio, to orient production of women programme. The AIR Nagpur is also reported to be doing this since last year. But the efforts appear to be insufficient. It is necessary to increase the frequency of the programmes and also increase the topics. More listeners' groups need to be organised by the functionaries in the ANP villages in the Blocks in order that the programme will be fruitful and the comments of the listeners can be fed back to the radio stations. In the quarterly broadcast schedule specific topics on nutrition should be included.

The Committee considers that an independent Officer under ANP may be considered for appointment at the AIR Poona and Nagpur, on the lines of the Nabhovani Shetkari Mandal Programmes.

Films

4.22. Film is one of the effective media of publicity among the rural masses who are mostly illiterate. Committee recommends that Government may expedite production of good films on ANP, keeping in view the attractiveness and appeal to mass audiences. This was insisted upon as a "must" by the various functionaries interviewed by the Committee.

Slides

4.23. The slides to be projected in the cinema theatres as a part of advertisement also need to be prepared.

Press

4.24. It is also necessary to explore the possibility of instituting special columns in the local dailies/weeklies for ANP. Such papers may also be approached for carrying out intensive campaign through special numbers and supplements. The publication like Lok Rajya, Gram Vikas etc. should be urged to bring out special numbers on Nutrition Education.

Others

4.25. *Audio Visual Media—Mobile Propaganda van.*—A fully equipped mobile publicity unit properly staffed by qualified and competent persons together with audio-visual equipment should be provided to each Division for carrying on continuous propaganda and demonstration on nutrition. A van in-charge of a qualified nutritionist and cinema equipment should be provided for showing films on nutrition in the villages. The nutritionist shall hold regular camps in the villages and give demonstrations of nutritious recipes for educating the village women. The mobile van and the necessary equipment should be provided by UNICEF. A regular scheme for this purpose will be able to cover large areas for spread of Nutrition education and achieve the objective to a great extent.

4.26. Games, songs and stories on Nutrition should be published and encouraged to be published. In securing publicity for the ANP the Director of Publicity should be fully involved and utilised. Printing date calendars with nutrition schemes needs to be taken up.

Booklets on recipes

4.27. It may also be worthwhile to publish in regional language booklets regarding simple recipes and distribute copies to all concerned, particularly the Mahila Mandals where it could be useful for demonstration purposes. The one prepared by Smt. Manorama Kotnis of Haffkine Institute, Bombay and published by Rural Development Department is also in short supply and it is necessary to get it reprinted for circulation to all concerned on a large scale.

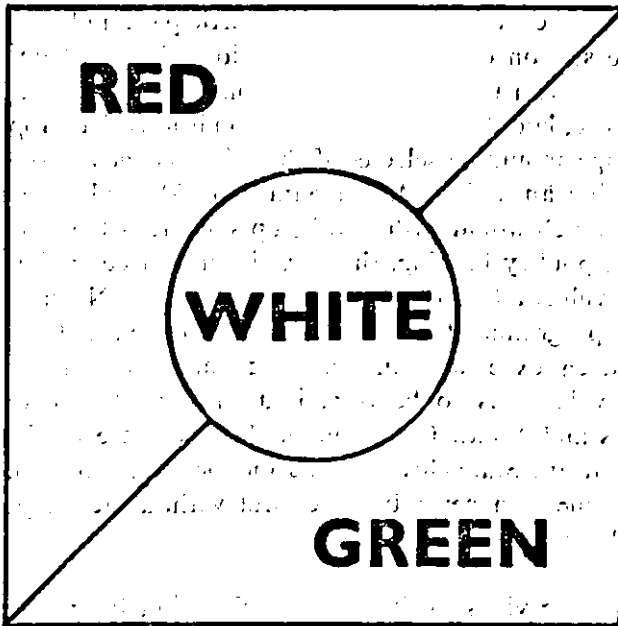
Exhibitions

4.28. The Committee was happy to see the stall on ANP set up by the Rural Development Department at the Regional Agrö-Industrial Exhibition held at Aurangabad in April 1971 which was reported to have been visited by about 75,000 persons. The remarks entered by the visitors in the Visit Book speak for themselves about the usefulness and utility of that stall. Considering this new experience, its high educative value and the impact it has on the rural masses, the Committee recommends that exhibitions on ANP should be held at Regional, District and Taluka levels as frequently as possible.

National Symbol on ANP

4.29. In the context of the publicity and support to the programme of applied nutrition, considering in particular the problem of malnutrition, we consider that a national symbol should be prescribed on the lines of the one prescribed for Family Planning Programme. In fact, the Family Planning Programme is basically related to the ANP. We, therefore, feel that a symbol of square in green, red and white colour could be more befitting and effective. Green colour to represent the green leafy vegetables and fruit and red colour to represent the fisheries and part of the poultry component to the extent of meat and white colour to represent the milk, i. e., dairy and eggs, i. e., poultry component. The square thus as a whole would stand for a square meal which is obviously full of nutrition.

The figurative illustration as considered suitable by the Committee is given below :—



CHAPTER V

ROLE OF VOLUNTARY ORGANISATIONS IN THE PROGRAMME

5.1. The Applied Nutrition Programme, for the present, is being implemented in 10 selected villages in each of the 88 selected blocks in our State, with the ultimate aim of covering all villages gradually. In some of the villages there are organised Mahila Mandals, Youth Clubs and other village organisations. The Government of India have emphasised their participation in Panchayati Raj as they feel that unless the economic contents of their activities are strengthened, the members of these institutions are not likely to maintain continuity of interest in their work. Better results are likely to be achieved if greater concentration of effort is made of these bodies in selected blocks of Applied Nutrition, Intensive Fishery Development and Intensive Poultry Development.

5.2. In our State Mahila Mandals and Yuvak Mandals have, therefore, been involved in the Applied Nutrition Programme as no extension/development programme can be successful without active participation of such bodies which consist of active section of the rural population. Women being in charge of feeding in the homes can alone exert influence on food habits. The State Government has, therefore, laid down as one of the conditions that Applied Nutrition Programme village should be selected if there is existence of or good possibilities of developing an active Mahila Samiti or Mandal or Yuvak Mandal, the members of which would wish to take up such activities like vegetable and fruit cultivation, poultry keeping, the organisation of educational demonstration, meals for vulnerable groups. Under the Applied Nutrition Programme skeleton feeding programme for a limited number of selected beneficiaries viz. pre-school children, expectant and nursing mothers and other vulnerable groups in the villages is to be organised through the Village Panchayats, Mahila Mandals and Youth Clubs out of the assistance received from the UNICEF, Central and State Governments and local contribution. Cooking and feeding programme can never be successful without active participation of Mahila Mandals and Yuvak Mandals.

5.3. While paying visits to the Applied Nutrition Programme blocks and villages selected under them it was observed by us that at some places Mahila Mandals are taking interest in the programme and members of the Mahila Mandals are attending feeding programmes turn by turn by spending their valuable time for love and affection towards children. They were not only participating in cooking but even feeding the pre-school children. Their help was really appreciated by all. During our visit to Gholwad, we saw a small exhibition organised by Gholwad Mahila Mandal. Not only exhibition was organised but "Shrutika" on Applied Nutrition Programme with music more or less

based on daily diet calendar published by the Rural Development Department was staged. What we observed was that at some places Mahila Mandals are very active while at some places they are not as a result of which feeding programme is suffering. It was noticed that many members of Mahila Mandal have not yet got training in Applied Nutrition Programme which needs to be arranged.

5.4. The other voluntary organisations involved in the programme is Yuvak Mandal. Important role of Yuvak Mandal has been recognised by Government and model constitution for village Yuvak Mandal was issued in G. C., P. & S. D., No. SEN. 1359-W, dated the 2nd January 1960, laying down functions of executive committee, duties of office bearers, funds, activities, etc. The Yuvak Mandal is required to undertake group activities for the benefit by way of Shramdan.

5.5. The Government of India has formulated a scheme for Yuvak Mandal which is implemented in Maharashtra by the Education, Sports and Social Welfare Department. Under the scheme of incentive awards to Yuvak Mandals there are State/District/Block level prizes of Rs. 1,000, Rs. 600 and Rs. 400. One of the criteria adopted in grading the Yuvak Mandal for the award is whether Yuvak Mandal is making economic activities like (i) plantation of fruits trees, (ii) raising vegetables, (iii) vegetables and fruits preservation, (iv) poultry keeping, (v) pisciculture, etc. The Yuvak Mandal can take advantage by taking above activities through the Applied Nutrition Programme. They will also get advantage of securing more marks in competition. At one village in Brahmapuri Block, we were told about the prize which the Yuvak Mandal had won in a competition on Applied Nutrition Programme garden.

5.6. In addition to the Government scheme of incentive awards to Yuvak Mandal, UNICEF is also providing financial assistance to Mahila Mandals and Yuvak Mandals in Applied Nutrition Programme Blocks for sustaining the interest and initiative of Mahila and Yuvak Mandals in Applied Nutrition Programme. The financial assistance at Rs. 700 and at Rs. 500 is paid to ten best Mahila Mandals and five best Yuvak Mandals in Applied Nutrition Programme Blocks once during project period for further intensifying their activities. In addition to the financial assistance given to Mahila Mandals recently, sewing machines at the rate of 5 per Applied Nutrition Programme Block have been supplied by UNICEF free of cost for distribution to active Mahila Mandals in 88 Applied Nutrition Programme Blocks. The object of the scheme is to encourage maximum participation of Mahila and Yuvak Mandals in production and other self-help activities of the Applied Nutrition Programme by giving them financial assistance with the hope that such assistance will serve to recognise good work already accomplished and also to develop group activities of a self-supporting nature. Only those Mahila and Yuvak Mandals which are in existence for a minimum period of one year, who are having meeting places, adequate facilities for storage of equipment and are showing

interest in activities related to the Applied Nutrition Programme are entitled to assistance. The fund is to be used primarily for developing activities like fruit, vegetables, gardening, pisciculture, food preservation, soap making, processing edible oil seeds or paddy.

5.7. It was observed by us that inspite of incentives, Yuvak Mandals and Mahila Mandals are not active in most of the blocks with the result that the programme is not making a proper headway. Like all other programmes and schemes the success of the Applied Nutrition Programme also depends on active Mahila Mandals and Yuvak Mandals. We have received number of suggestions for making Mahila Mandals and Yuvak Mandals effective. We have considered those suggestions and recommend that the following steps be taken to make the Mahila Mandals effective :—

The women folk are busy throughout the day with their household and field work. They are generally free after 8 O'clock in the night. The Gram Sevika and Mukhya Sevika are visiting Applied Nutrition Programme villages only during office hours. The Mukhya Sevika and Gram Sevika should make night halts in Applied Nutrition Programme villages twice a week or so and try to contact women folk with the help of Sarpanch, trained Applied Nutrition Programme teachers and talk to them about Applied Nutrition Programme at night.

5.8. However, having accepted the need for voluntary agencies like the Yuvak Mandals and Mahila Mandals the problem raised before the Committee is how to make the agencies more effective so that they can participate with great vigour in the programme. Among the suggestions made to the Committee, the following were important :—

- (i) Monthly remuneration should be given to the Mahila Mandals and
- (ii) The girls from age group 12-16 should be asked to be associated with the Mahila Mandal activities and given training in cooking and preparing recipes so that after their marriage when they go to new homes, they can practise the improved methods and better nutrition.
- (iii) Installation of a Stall in the weekly bazar of the recipes prepared by Mahila Mandals.

5.9. In this context it is remembered that the suggestion to organise Kishori Mandals of girls of the same age group was made by the field staff in one block, but we feel that this measure could not go a long way in making the voluntary agencies active. They have to take initiative on their own and come forward to implement the programme. In the initial stages, of course, the paid agencies will be guiding them. The Committee supports the suggestion of having a stall in the weekly bazar of the recipes prepared. This will not only help in educating the people but will also fetch monetary returns to the Mahila Mandals. One of the Presidents of the Zilla Parishads also said that apart from disburse-

ment of monthly remuneration to the Mahila Mandals, no substantial benefits would be forthcoming and the scheme would remain only on paper. Viewed in this context it appears it would be difficult to lay any hard and fast measures for activating the Mahila Mandals and Yuvak Mandals. The incentive awards by the Government of India as well as UNICEF, etc. have also remained on paper. We were also told that in villages political awareness is no doubt present in the Yuvak Mandals but the sense of social service is absent, which has got to be developed. The sense has got to be inculcated in the minds of the members of these agencies by constant propaganda, education etc. The Village Panchayat is a statutory body at the village level where the Sarpanchas, Up-sarpanchas and Panchas are also elected. The Committee considers that if the elected leaders in the villages, including lady members in the Panchayat, take interest in such programmes not particularly in Applied Nutrition Programme but other development programmes, then their members would be able to make the voluntary agencies really active.

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CHAPTER VI

PRODUCTION ASPECTS OF THE VARIOUS COMPONENTS OF APPLIED NUTRITION PROGRAMME

Horticulture

6.1. The Committee observed that the horticulture development in general under ANP has been slow. Unlike the spheres of poultry and fisheries, it is difficult to associate community, school and kitchen garden development with the overall horticulture development programme in the State. Only in the area of vegetable seed production can this be done. The objective of setting up of these gardens is more educational than commercial.

6.2. The ANP needs a co-ordinated approach in all technical aspects and whilst advice was given and progress made in the horticulture aspects other spheres of operation such as utilisation of produce have been neglected. Unfortunately, though ANP is being implemented in this State since 1965-66, this stage has not yet been reached in any of the blocks in the State.

Seed supply for ANP Gardens

6.3 At present the seed supply is made by the UNICEF in packets by obtaining the supply from the National Seeds Corporation of India. However, whilst the NSC supply seed to blocks, it is possible to influence what is produced in the ANP Gardens, whereas when the seed farms supply seeds, the types of vegetable grown are often more of popular interest than of nutritional value. In the State, with different agro-climatic regions, the varietal preferences differ considerably from region to region and in certain crops a variety species that is acceptable in one area will not be in another. The Committee was told that certain percentage of seed supplied is not used. As a result of the encouragement to develop their own production with the ultimate aim of self-sufficiency, the four seed farms in the State at Manjri (District Pune), Jalna (District Aurangabad), Kosbad (District Thana) and Buldhana are also employed on the production of seeds. There is nothing in particular to comment on this aspect as the Blocks did not experience any difficulty in obtaining the seeds. Besides, they have also been authorised to purchase good local seeds by meeting the expenditure from contingencies.

Community School and Kitchen Gardens under ANP

6.4 The objectives of community, school and kitchen gardens are education and production. It is, therefore, worthwhile examining at this stage the progress made in the implementation and the subsequent impact of these gardens over the past 5-6 years. A number of difficulties seem to have been encountered and these will be highlighted.

School Gardens.—The school garden programme is undoubtedly the important item of the gardening activities in the ANP Blocks. The question that came up before the Committee was about the cost/benefit of such operations as the total investment in a school garden earns high for an area of possibly less than an acre. Agriculture in our State is entirely dependent on sufficient water being available at the right place and at the right time. This applies equally to a school garden and in areas of rocky subsoil, the cost of construction of well alone may be in excess of Rs. 10,000. It is difficult to measure from general field observations the extension value gained. But in many places visited by the Committee the School Garden had no independent well. The performance of the school gardens has not been uniformly good everywhere due to lack of proper facilities for watch and ward, fencing of the gardens, and in some places due to lack of adequate interest on the part of school teachers.

The main difficulties arising in the implementation of the school garden programme are :—

(1) non-availability of suitable land of sufficient area adjoining or adjacent to the school,

(2) high cost of obtaining water. Financial provision is often below what is necessary to dig wells or deepen existing ones. A phased programme of well digging should be instituted or the situation arises where 10 half-completed wells exist when the financial allocations are exhausted. This has actually happened, we were told in Blocks in few Districts,

(3) delays occurred in the ANP training for school teachers.

Further difficulties arise, once the garden is established and improvements in organisation are possible. The following observations are made :—

(a) Children can still become more involved in the day to day activities in the garden. Greater participation from the children is desirable.

(b) There are logistical problems regarding fertilisers and pesticides availability.

(c) The problem of utilisation of the garden during summer holidays has not been solved. This period coincides generally with the time of acute water shortage and thus even green manuring is not possible.

(d) The vegetables and fruits produced are so negligible that they do not form a meal. The children are expected to eat raw vegetables or fruits at the school.

(e) There is a scope for improving the cropping pattern in the gardens. (We have subsequently commented upon the cropping pattern). Better utilisation of available land and greater emphasis on the more nutritious vegetables and fruits are called for. Papaya growing in school gardens can be easily extended particularly using the new high yielding varieties.

(f) To make the teachers interested in the programme, the Education Department should be involved in the operation of the programme.

(g) The competitive spirit within the school and between schools needs to be encouraged.

(h) Improved instructions in the use of imported garden tools is necessary.

(i) Appointment of a Mali-cum-Chowkidar or a provision for giving allowance to the staff attached to school to keep a watch for school garden during vacation or out of school hours is necessary.

Nevertheless very little progress seems to have been made in the development of school gardens. The objectives are not being fully achieved in many blocks and there is much scope for improvement.

Kitchen Garden

6.5. Kitchen gardens are of course not new to our State. In rural areas the presence of itinerant livestock greatly precludes the use of patches of soil around houses unless adequate fencing is provided. The practice of planting vegetables is no doubt increasing but this is mostly seasonal i.e. during rainy season only. The position of water facility in houses of the villagers is well-known. Even on the drain water this activity could not be said to be increasing and it is doubtful if the assistance given in the form of seed, garden tools and fertilisers is justified. We were told that with the growth in population, the area of gaathan has not been increased, with the result that there is no space in the villages for taking up kitchen gardens. Observations show that the sets of garden tools supplied by UNICEF to the ANP Blocks are generally not used and farmers prefer their own indigenous tools. We feel that the supply of seeds through UNICEF was not adequate. The locally acceptable varieties of particular vegetables must be supplied to kitchen gardens and this activity should be expanded through seed farms. A drive should be launched for taking up kitchen gardens in all ANP villages.

Community Gardens

6.6. The development of the community gardens has been very much disappointing. This is due to several factors one of them being the wrong selection of villages. In the earlier series of Blocks, the criteria for selection has not been observed properly. Such of those functioning are utilising paid labour to some extent and thus the take off for meals demonstrations can only be small unless the village panchayat is prepared to lose money by subsidising the garden. In some Blocks, the Committee came across the practice of giving community gardens on 50 per cent profit basis to the tenants. This is highly against the spirit of the programme, and cannot be encouraged. Very few community gardens in the Blocks, can be said to have attained a stage of self-sufficiency. The experience gained from these few gardens does show that the basic idea can be put into practice but it needs considerable drive from the Block Staff to persuade the voluntary agencies like Mahlia Mandals and Yuvak Mandals and landless villagers to give up their time in return for some garden produce. The major problems associated with community gardening is the acquisition of suitable area of land. The experience has been that these land matters are not dealt with on priority basis and whatever land is given either by Government or the villagers is of a low fertility and at a considerable

distance from the village. It consumes great amount of labour and money for its development.

6.7. The philosophy behind the concept of community garden is no doubt good and ideal but according to the saying "every body's land becomes nobody's land" people are losing interest in this activity. A number of factors have contributed to reduce this activity to a paper programme only. In few Blocks were seen the combined community and school gardens. In areas where land is difficult to acquire such a combination can be tried. Here also an appointment of a *Mali-cum-Chaukidar* is necessary.

In some Blocks, the Committee noticed the tendency of bringing the major portion of the Community Garden under the Cash Crops or other crops. While this may be necessary to some extent to balance the cost of purchases of cereals, etc., for feeding programme it is necessary to restrict the area say maximum 25 per cent to 30 per cent for such crops, the rest of the plot being utilised for vegetables and fruit grafts.

6.8. One suggestion received in this behalf was that the scheme of community gardens should be stopped since it would not work efficiently. We have thought over the suggestion and consider that since the 'Community' is to be involved in this programme and also the programme requires that demonstrations should be given to them in the matter of horticulture on ANP plots, etc. it will not be possible under the programme to give nutrition education in the absence of the Community Gardens by way of demonstration methods as is contemplated under the programme.

6.9. Another suggestion has been received to the effect that production component should be stopped and/or funds for provision should be handed over in lumpsum grants to the State Government by the Government of India for stepping up their schemes for—

- (a) increasing production in Horticulture, Fisheries and Poultry,
- (b) School and pre-school feeding of nutritious products in poor areas.

We have also thought over this problem and there appears to be a drawback in this suggestion. Further, the production programmes launched by Agriculture, Fisheries and Animal Husbandry Departments were not able to reach the villagers to a great extent. The basic principle under the ANP *inter alia* involves nutrition education, production and consumption. The Departmental activities like horticulture and poultry, etc. are already going on all over the State without creating any awareness regarding nutrition education. The Scheme for Applied Nutrition has, therefore, been drawn up in addition to the regular departmental programmes. There is yet another drawback that women folk who are mainly to be directly involved and associated in this programme will not come into the picture at all. Again, if nutritious products are to be given for the pre-school feeding it will become a sort of supplied nutrition programme. Balancing these considerations, the Committee feels that this suggestion is not workable.

However, the community gardens need to be revitalised and put on sound footing by introduction of new cropping pattern as has been discussed by the Committee in the subsequent paragraphs. The wells should also be got deepened to ensure adequate water supply. The possibility of constructing surface wells on the slopes as demonstrated in the Agricultural Institute, Kosbad, should also be explored at suitable places to conserve rain water. This will provide good source of irrigation to the gardens. The Panchayati Raj Institutions should also, as far as possible, extend facilities at Panchayat level for community gardens to be managed either by Panchayat or by voluntary organisation associated with the programme.

Cropping Pattern

6.10. The Committee observed that, in Applied Nutrition Programme villages horticultural programme has a good scope. In many cases, it was seen that the vulnerable groups have started getting vegetables and fruits only after establishment of school or community gardens and demonstration kitchens. However, they get in seasons only. They now look forward for supply of vegetables and fruits throughout the year. It is, therefore, necessary that cropping pattern suitable for different agro-climatic regions be worked out for Applied Nutrition Programme gardens by the Agriculture Development Officers of Zilla Parishads for continuous supply of vegetables and fruits.

6.11. Some of the Applied Nutrition Programme blocks have thoughtfully worked out very good cropping patterns. For instance, in Applied Nutrition Programme gardens in one block, 25 different varieties of vegetables and fruit crops were produced during the year. Such example could be followed in other Applied Nutrition Programme blocks also.

6.12. While working out a cropping pattern, factors like availability of water, soil, type and climate should be taken into account. Our State has only 6 to 7 per-cent of the land under irrigation and so emphasis should be given on such plants which could be grown on monsoon water or with less water.

6.13. It is observed that perennial plant like Shevga (Drumstick) grows without water if planted in the beginning of the monsoon. Shevga is very important plant from nutrition point of view. A campaign for planting 'Shevga' be taken throughout Maharashtra. This plant is to be propagated by cutting and hence seed farms should be encouraged to plant good quality mother plants for continuous supply of cuttings.

6.14. The other plant which grows without water is Agasta or Hatga (*Sesbania Grandiflora*). The flowers and tender pods are used as vegetable. This plant is easily propagated by seed.

6.15. Papaya and banana are quick growing fruit plants which can also be propagated easily throughout ANP in our State. To get a good crop of papaya, the seedlings for planting should be prepared at the beginning of the monsoon.

The Committee observed that the technique developed by the Gramsevak Training Centre, Kosbad, district Thana can be followed in most of the places. The seeds of papaya are sown in small bamboo baskets or plastic bags in April and two months old seedlings are planted in June at the beginning of monsoon. The crop planted in this way is very vigorous as the plants get the advantage of monsoon for their grand period of growth. *This practice of preparing seedlings if popularised through training, will help to propagate papaya cultivation in Applied Nutrition Programme on a very large scale.*

6-16. *Guava* is also one of the fruit plants, which has important place in nutrition. This crop has a good scope for propagation in Applied Nutrition Programme throughout Maharashtra. The plant is propagated by layers or seedlings and one can get the fruits within two years if propagated by layers. The Committee observed that in most of the ANP gardens, guava plants showed a good performance. Since this is deciduous plant, it can grow with less water also. Lucknow 49 or Sardar variety of guava is recommended by the Department of Agriculture.

6-17. *Chiku* is also an important fruit crop, which could be cultivated in humid and semi-humid climate. In humid climate it gives three flushes during the year, thus assuring fruits throughout the year, while in semi-humid climate it gives 2 flushes and we can get the fruits for 6 to 8 months of the year. *Chiku* is grafted on stock plant called "Rayan" which is a very hardy plant and has a deep-root system. It could, therefore, grow in wide ranges of soil and climate. Its cultivation should be propagated.

6-18. The plantation of citrus crops like *Mosambi* (Malta), *Santra* (Orange), *Kagdi limbu* (sour lime) and pomegranates were formerly located in certain areas only. For instance, it was considered that oranges could only be grown in Nagpur region or *Mosambi* in Ahmednagar and Jalgaon areas. But now due to horticultural research and especially in the area of plant protection, it has been made possible to grow this crop in other areas of our State. The Committee after visiting some gardens found that these three crops could also be introduced in ANP gardens.

6-19. Considering only 6 to 7 per cent area under irrigation in our State, we shall have to give emphasis on growing maximum vegetable crops in areas depending on monsoon. For that purpose suitable cropping pattern will have to be worked out in different agro-climatic regions. While advocating this cropping pattern emphasis should also be given for growing crops which have keeping quality so that the vulnerable groups can continue to get the supply of vegetables after monsoon also. Suran, pumpkin, Kohala (white gourd) and carrots are the four crops having keeping quality.

6-20. At the onset of the monsoon some vegetables like 'shevla', and 'Katval', etc. are sprouted and the poor people include them in their diet.

Such naturally grown vegetables be included in the cropping pattern. Seeds or tubers of such vegetables should be collected and propagated on the Applied Nutrition Seed Farms and then distributed to the Applied Nutrition Programme gardens.

6-21. Similarly, the pulses like chavli, udid and mug, especially the short duration varieties like Vaishakhi Mug developed by the National Seeds Corporation could also be grown in monsoon and their produce be dried and used throughout the year.

6-22. Soyabeans and groundnut are rich in proteins and have an important place in nutrition programme. During recent years, scientists have evolved early and high yielding varieties of both these crops. While working out the cropping pattern importance should be given to include both these crops.

6-23. The Committee observed that cereal crops like jowar, bajra, wheat or rice and the cash crops are grown in some of the school and community gardens. The produce is sold, and in exchange vegetables and pulses are being purchased for running the demonstration kitchen. But this practice of growing cereal crops be gradually discontinued and restricted to 25 per cent to 30 per cent of the area of Community Gardens as recommended and their place should be taken by vegetable and fruit crops, as the objective of community and school gardens is to serve as demonstration centres for producing vegetable and fruit crops throughout the year. This purpose could only be served if suitable cropping pattern of vegetable and fruit plants is worked out.

6-24 *We suggest that a committee should be appointed with Superintending Agriculture Officer, 3 Agriculture Development Officers of Zilla Parishads, Principal of Gramsevak Training Centre and Professor of Horticulture at the Agriculture College situated in each Agricultural division for recommending the cropping pattern. The committee should meet at least twice a year.*

Pisciculture

6-25 Fish is an important constituent of human diet as it provides proteins of high quality. This lends a significant importance to fish in the entire food complex to improve the present level of nutrition of our people. Increase in fish production to meet the nutritional requirements of our people has become a necessary obligation which can be met with by undertaking developmental schemes in "pisciculture".

6-26. The Committee saw the operational side of the fisheries programme in ANP Blocks. The Committee did not have before it the latest figures of production and catch collection but from whatever figures were given to it during the field visits and interviews, it appears that there is much scope for increasing the production. While there have been reports of successful operations

in certain areas the production and feeding appears to be below the prescribed targets, e.g., the Bassein Coastal Fisheries Block. The Fishermen's Co-operative Society has to supply 10 per cent of their catch per boat (about 3 tons) free of cost for demonstration feeding programmes which are being arranged in selected ANP villages. The Society is expected to sell the balance catch of 90 per cent as far as possible in other non-ANP villages of the Block, with a view to giving benefit of this additional production of fish to the other non-ANP areas of the Block. Greater co-ordination of this programme with the departmental programme (viz. of the Fisheries Department) would be essential. It was also complained that regarding the marine ANP near about Bombay, it was doubtful whether the entire catch collection was being utilised for the benefit of the villagers either for demonstration feeding or for their local consumption. The Committee felt that this should be taken note of.

6.27. The Fishery component of the Programme both marine (coastal) and inland is getting popular. The coastal fishery activity under ANP at Bassein and Shriwardhan needs to be taken up on a large scale. The Ice Plant and cold storage at Kocchiwade-Bassein (Thana District) which is being installed with the aid from UNICEF is yet to be commissioned.

6.28. Four Boats for Shriwardhan Block have already been commissioned and four are reported to be under construction. The engines for these four and also for eight boats at Guhagar Block have also it is understood been received from the UNICEF but without some parts viz. propeller and gears. It is expected that in the ensuing season these boats would be used and the catch could be distributed among the school children and pregnant women in the ANP villages.

Inland Fishery

6.29. The Committee was happy to see the inland fishery activity at village "Kurza" of Brahamapuri ANP Block in Chandrapur District for which equipment like out board motors, nylon twine etc., is supplied free of cost by the UNICEF and the State Government has appointed some additional staff to supervise the fishing operations to ensure that 25 per cent of the catch is donated for the demonstration programme by the beneficiary for a period of 5 years. There is a great demand for this inland fishery from other blocks as well, particularly from the Districts of Bhandara and Chandrapur, where there are numerous ex-Malguzari Tanks with adequate water spread. *The Committee recommends that the inland fishery should be given to all the tanks in the ANP Blocks excluding the coastal fishery Blocks.* We were told that the Fisheries Department is trying to cover all the tanks under the regular departmental schemes. For sanctioning inland fisheries programme to an ANP Block, generally it takes time because it involves assistance from UNICEF in the form of equipment and also finance from Government. The Committee feels that pending UNICEF's approval and receipt of equipment from them, ANP villages

having tanks should be given this component of inland fisheries. This will *not* require much expenditure. Generally such tanks are auctioned. In the ANP villages the amount of lease money may be reduced suitably with the condition of contributing a certain percentage of catch for demonstration feeding.

Poultry Keeping

6.30. Poultry supplies us with eggs for eating a valuable protein food and gives us meat and valuable fertilisers for the gardens and our crops. The objective was to encourage an increased use of eggs which are rich in protein and iron *plus* vitamins to aid in the balancing diet for people particularly for women and children.

6.31. In 1965 as part of the ANP, Government sanctioned a Poultry Development Scheme. This envisaged production of eggs through individual poultry keepers by giving them—

(a) training in poultry keeping,

(b) loan for construction of poultry houses (out of which 25 per cent was to be treated as subsidy),

(c) 20 pullets of 2-2 1/2 months age at a subsidised rate of Rs. 1.50 per bird and the poultry feed from the Central Hatcheries on no-profit-no-loss basis. Each poultry keeper was required to donate two eggs per day for common community programme.

6.32. The scheme was modified in January 1967 to make it realistic and practical by increasing the number of birds to be supplied to individuals to 40 and reducing the loan for each poultry house to Rs. 200 (including 25 per cent subsidy). The number of eggs to be donated was also reduced to 15 per bird per year. Under the modified scheme, financial assistance was also admissible to V. Ps. The number of birds to be supplied at subsidised rate to beneficiary V. P. was limited to 400. Even the modified scheme did not succeed due to improper selection of beneficiaries, high cost of poultry feed and high rate of mortality of birds due to inadequate feeding. The scheme was further revised in June 1969 to give it a practical shape. Under this scheme, the Blocks were divided into two categories viz. : (1) Tribal Development Blocks and Interior Blocks, (2) Road side C. D. Blocks. In the Tribal Development Blocks, the scheme of upgrading Deshi birds by supplying cross bred cocks free of cost to the selected villages was to be undertaken. In the other type of Blocks the White Leghorn birds were to be reared.

6.33. Though about Rs. 8 lakhs have been paid as loans to individuals as well as V.Ps. (out of which 25 per cent was subsidy) the exact figures of recovery of poultry loans are not readily available. The recovery is spread over a period of 10 years and has to start after 2 years. But we found that the recovery has been very poor, rather neglected.

6.34. Stipends were also paid to the trainees for poultry training. From our field visits and discussions with the B.D.Os. we gathered that about 35-40 per cent. of the trainees did not take up to poultry keeping and the training was thus wasted. This was probably due to financial limitation with the B.D.Os. in granting loan and also due to failure on the part of some to complete the formalities for securing loans and also lack of enthusiasm.

6.35. Almost all the birds were reported to have died. The high rate of mortality was attributed to diseases like ALC (Cancer) improper management and feeding. It is possible to check disease by proper management and feeding which is generally lacking at the level of beneficiaries. We were also told that instructions have been issued to the Central Hatcheries to replace the birds wherever such mortality on account of ALC occurred. But certain B.D.Os. complained that such birds were not replaced by the Central Hatcheries. The B.D.Os. also complained that the Hatcheries could not supply feed in time. It is understood from the Director of Animal Husbandry that whenever poultry feed at the Central Hatchery was not available on account of non-availability of ingredients and non-installation of feed grinders and mixers etc., the poultry keepers were to purchase the same in open market or through another agency.

6.36. The number of eggs actually donated by the beneficiaries was reported to be very small. The beneficiaries have committed breach of condition regarding donation of eggs to common kitchen, and it appears that they have sold the produce in open market. Shortfall in the donation of eggs was attributed to the inadequate feeding and utilisation of eggs by the beneficiaries themselves due to financial difficulties. The selection of beneficiaries was not done properly. The technical know-how about the industry was also lacking. There was also no proper follow up. The cost of the feed was also high which the villagers could not afford.

6.37. Owing to high rate of mortality in birds, due to lack of proper care, irregular supply of birds and also to a great extent the high cost of poultry feed inadequate marketing facilities for sale of surplus eggs, we have found that the poultry component of the programme has been a total failure in the ANP Blocks. Due to economic conditions, lack of facilities for supply of balanced feed and difficult marketing conditions, it appears that sophisticated type of poultry is not generally found suited to the rural areas. Poultry farming is a highly technical industry and needs careful handling. There are instances where the poultry farms are being run successfully on commercial basis. However, it is expedient to evolve a system suited to rural conditions in this behalf so that poultry keeping should be practical and economic proposition for such areas particularly for the benefit of the people in the low income group. The Committee came across instances during its field visits where the poultry cages under the revised poultry schemes were discarded as a result of the heavy

damage. Yet, the Deshi birds were reared by the same beneficiaries. This shows that the people are not averse to poultry keeping. All that they want is production at low cost or negligible cost.

6.38. After discussion with the representative of the Director of Animal Husbandry, Poona and the various District Heads of Animal Husbandry Department and the discussion with the B.D.Os., the Committee felt that the practical project in this situation is to upgrade the Deshi birds which have the inherent ability to survive in open range conditions with intake on scavenger basis by introducing level of imported stock built line. This is a well known practice which has been used to varying degree by extension workers in many areas usually with mature imported pure bred male birds given on exchange basis. In short the scheme is to upgrade Deshi birds by introducing cross-bred cocks and withdrawing the country cocks in the villages. By this method the size of the eggs would be bigger and also the egg laying capacity would increase. The cross-bred cocks can be given at a subsidised rate. We were told that this cost would come to roughly about Rs. 5 per cock. We understand that Government in Agriculture and Co-operation Department is considering this scheme for intensive poultry development and, therefore, we recommend that the same should be made applicable to the Applied Nutrition Programme Blocks.

6.39. To begin with, the scheme should be taken as pilot project in some blocks and should be experimented in 5-10 villages in the first year to cover 1,000 Deshi female birds. The condition of contribution of eggs for feeding programme may have to be relaxed to some extent.

Dairy

6.40. Milk production is an important component of ANP and milk products are of prime importance as a nutritive food for children and expectant mothers. The Committee paid a visit to Mahad Block and saw the activities of the Dudh Utpadan Sangh. It is understood that the proposed milk production project in Mahad ANP Block has been drawn up with this background. The Committee feels that it has a reasonable chance of success because the poultry component under ANP, being highly technical, has failed. Alongwith the dairy activity the improvement of milch stock, pasture and fodder development, veterinary and breeding facilities, can also be achieved. Suitable equipment for milk processing should be supplied by UNICEF. In the light of the experience gained it is recommended that the dairy component under Applied Nutrition Programme be extended to other milk producing areas viz. Arvi (in Wardha District in Nagpur Division), Miraj (in Sangli District in Pune Division) and Udgir (in Osmanabad District in Aurangabad Division).

Bee-keeping

6.41. Honey has both medicinal as well as nutritional value. The Committee observed that in Gram Sevak Training Centre, Kosbad and some of the

ANP villages in Dahanu Block (District Thana), Bee-keeping is being practised. Bee-keeping does not involve any appreciable expenditure except purchase of bee-box costing about Rs. 30 to Rs. 40 and a petty expenditure of Rs. 15 per box for purchase of wax paper, honey extracting machine etc. We were told that from one-bee box 10 Kgs. of honey worth Rs. 120 could be produced every year. There is another advantage in Bee-keeping in that it has direct bearing on fruiting of the plants by way of pollination. The Committee, therefore, recommends that Bee-keeping should be introduced under ANP, after studying the proper flora required by the bees.



CHAPTER VII

FINANCIAL ASSISTANCE

7.1. Provision of adequate funds is basic for the successful implementation of the ANP. The first series of 12 ANP blocks was opened by Government during 1965-66. They are treated as non-plan blocks and hence the entire expenditure on these blocks in respect of pay of staff, contingencies, and also the horticulture, poultry and fisheries components of the programme is borne by State Government. In other words, no central assistance is forthcoming for these series of blocks.

7.2. There are in all 4 seed farms in the State at Manjri (Pune District), Jalna (Aurangabad District), Buldana and Kosbad (Thana District). Out of these four seed farms the expenditure of Manjri and Jalna farms is met from Non-Plan provision. For these seed farms, the amount is given to Divisional Soil Conservation Officer, Jalna and the Superintendent, Agriculture School, Manjri. The expenditure on the remaining 2 seed farms is met from the Plan grants (Agriculture and co-operation Department.)

7.3. There are four Central Hatcheries in the State, viz. Kirkee (Pune), Kolhapur, Aurangabad and Nagpur, which supply birds, poultry feed (mash) to blocks under the ANP. The amount for the expenditure of these Hatcheries is placed at the disposal of the Director of Animal Husbandry, Maharashtra State, Pune under Non-Plan provision. The expenditure of Bassein and Brahmapuri coastal and inland fisheries blocks, respectively, is also met from Non-Plan provision. The Director of Fisheries is given funds for staff etc. for these two Fisheries blocks from the Non-Plan provision.

7.4. According to the Plan of Operations the ceiling limit of Horticulture programme for these 12 blocks is Rs, 80,000 for the operational period of 5 years. The amount for Horticulture programme is given directly to the Block Development Officers who have been declared as drawing and disbursing officers. The Deputy Chief Executive Officers of Zilla Parishads have been declared as countersigning officers in respect of ANP. Each ANP block is given assistance worth, \$27,500 both in respect of equipment and financial assistance including training *vide* page 26 of the Hand Book. Similarly, each training institution is given financial assistance worth \$6,650. Provision for the expenditure on training and purchase of fertilisers is initially made in State Budget and subsequently the same is reimbursed by the UNICEF.

7.5. The blocks which have been started in 1966-67 onwards are entitled to the Central assistance. In 1966, the Government of India had communicated that the Central assistance at Rs. 17,000 per block per year would be available

to the blocks, which would be started during the Fourth Five-Year Plan on the following 5 items subject to the equivalent matching contribution by State Government :—

| | Rs. |
|---|------------------------------|
| 1. Cost of digging school well | 2,000 per well. |
| 2. Cost of providing pumping sets to School wells | 500 per set. |
| 3. Maintenance of school wells | 250 per well per year. |
| 4. Assistance to poultry units maintained by schools associate organisations. | 1,500 per unit of 100 birds. |
| 5. Assistance of associate organisations for acquiring necessary equipment and accessories. | 1,000. |

7.8. The Agriculture and Co-operation Department also earmarks separate provision for Horticulture, Poultry, and Fisheries components of ANP for these plan blocks. We were also told that according to the instructions of the Government of India, the State Government is required to make a provision of Rs. 51,000 per block per year as follows :—

| Component | Amount in Rupees |
|-----------------------------|------------------|
| Horticulture and irrigation | 23,000 |
| Poultry | 14,000 |
| Fishery | 14,000 |
| Total | 51,000 |

However, we observe that this limit has never been adhered to for purposes of budget provision by the Agriculture and Co-operation Department for various reasons including non-utilisation of grants by Block Development Officers. We were also told that the Government of India expect the State Government to take into account the overall provision and expenditure on the production components in the ANP, through the regular indential departmental schemes, for assessing the matching contribution by State Government. The difficulty as pointed out to us was about the apportionment of such provision / expenditure on the ANP villages and non-ANP villages within the same block where development activities are common and even in the absence of ANP, the normal departmental development schemes would have been implemented. The Committee would like this aspect to be taken note of. As required by the Government of India, the State Government used to make matching contribution

upto 31st March 1969, which will be seen from the following provision made by the State Government during the years 1966-67, 1967-68 and 1968-69 :—

| Total Provision in the state Budget | | |
|--|----|--|
| (Rs. in lakhs) | | |
| | | 1966—67 |
| C. D. | .. | 5.62 (for 8 blocks. 50 per cent Government of India's Share). |
| | | 1967—68 |
| C. D. | .. | 8.12 (for 8 plus 16 i.e. 24 plan blocks. 50 per cent Government of India's share). |
| | | 1968—69 |
| C. D. | .. | 11.90 (8+16+23=47 plan blocks. 50 per cent Government of India's Share). |

7.9. Under the Fourth Five-Year Plan i.e., from 1st April 1969, rate of special central assistance has been increased from Rs. 17,000 to Rs. 34,000 per block per annum and it is not tied with a matching contribution by State Government. The State Government is, however, making provision for pay of staff, contingencies, maintenance of vehicles etc. from the provision carved out from C. D. provision. The items on which the central assistance is available have been enlarged in consultation with the Government of India. At the rate of Rs. 34,000 per year per block each plan block gets Rs. 1,70,000 for a period of 5 years for 10 villages. Since the ceiling of Rs. 80,000 under Horticulture Programme was insufficient the State Government increased this limit to Rs. 1,20,000 from 1-4-69. Thus, out of Rs. 1,70,000, an amount of Rs. 1,20,000 is utilised for the items of Horticultural Programme and the remaining amount is utilised for other items including nutrition education.

7.10. Under poultry separate provision is made for loan and subsidy on the basis of the expenditure incurred by the Plan Blocks. The Government of India sanctions the expenditure for the ANP blocks. The financial commitment of the State Government under the State subsidiary Plan of Operations, is in the main, for the production components of the programme. The commitment is to take care both of the infra-structure facilities for the field extension of those programmes and the extension effort proper. The experience has been that the funds placed at the disposal of the Block Development Officers for ANP are never felt short. On the contrary we were told that there have been surrenders every year by the Block Development Officers. *Viewed in this context, the Committee feels that the financial assistance given to the blocks is adequate and no modification is considered necessary.* The Committee, however, considered that inter-block adjustment in the utilisation of Central assistance may be allowed so that special assistance could be applied to the maximum advantage. We were told that the Government of India and the State level Co-ordination Committee on ANP are already seized of this suggestion.

7.11. However, the Committee considers that even after the operational period of the ANP block is over and there is an unspent balance left on the items qualifying for central assistance, the Government of India may be moved to release the amount to that block to the extent of the unspent balance.

7.12. The ANP is of long gestation and it takes time for the blocks to be able to utilise assistance. If for any reason, the available yearly assistance is not used up by the programme blocks in any year, it should be made possible for the block to utilise the same in the following and remaining years of the programme.



CHAPTER VIII

COVERAGE AND SELECTION OF ANP BLOCKS

8.1. We have already explained the position of the existing number of ANP blocks earlier. From whatever we have seen in the field with regard to the implementation of the programme we feel that the selection of blocks, which is to be done according to the prescribed criteria as laid down by Government, has not been done properly with the result that the programme, particularly horticulture component, has suffered. At many places the villages have been selected without exploring the possibility of—

(i) the availability of land, irrigation facilities and its proper development, and;

(ii) other development potential in the villages.

8.2. This particular aspect was discussed by the Committee with the office bearers of the Zilla Parishads and a few suggestions in this regard were made, viz., that the village should be made to pay popular contribution, say, upto 25 per cent, either in cash or kind which will create in them a sort of affection towards the programme and ensure their participation in the programme as is done in some schemes under the Community Development Programme.

8.3. The reason explained in support of this popular contribution scheme was that today the selection of the villages is done on an *ad-hoc* basis including some political considerations. We appreciate the frankness shown by certain office bearers in making this statement. The Sarpanch of the selected village is not taken into confidence on the position of the finances etc., and the possibility of running the scheme is not discussed or explained to him and the Gram Panchayat. If the condition of popular contribution is imposed, the scheme would be discussed with the Sarpanch and the Village Panchayat in greater details and after ascertaining the response of the villagers the scheme would be taken up which will have full popular support and it will have good impact in ultimately making the programme successful. But at other quarters the reaction to this proposal was that only the economically sound villages will be coming forward and that the development of the backward villages will suffer. We fully appreciate this view point and feel that the criteria of popular contribution will not help in ensuring the proper selection of villages. Even the Evaluation Committee on Panchayati Raj has recommended in paragraph 8.77 of its Report that in the case of scheme like drinking water supply which provide 'basic amenity' should not require popular contribution. If the selection is done strictly according to the norms laid down by Government, the Committee expects that full justice can be done in the matter of selection of villages. Ultimately, with the expansion of the programme, even the other undeveloped areas are bound to be taken up for coverage.

8.4. In this context we have found that in certain places the selection of ANP blocks has not been done on proper lines. We, therefore, recommend that a review should be taken of all such blocks particularly in the initial stages so that the ineffective blocks/villages could be replaced in the initial stages only.

8.5. According to the accepted policy every year the Government of India allots new ANP blocks to the State. At present we have 88 ANP blocks functioning in the State. It is understood that during the current year Government of India had allotted 5 new blocks to our State which ultimately had to be dropped on account of financial stringency.

8.6. The Committee observed that there were demands from the adjacent non-ANP villages in the same ANP Block for extending this programme. In this context we feel that the items like training of teachers, Mahila Mandal Members and ground level functionaries need to be undertaken in these non-ANP villages to create a background. Having done this thepr oduction and demonstration activities can be developed through supply of seed samples and new poultry activity. As a pilot effort the Committee recommends that in all existing ANP Blocks, 10 non-ANP adjoining villages should be commissioned.

8.7. In the context of the opening of the New Blocks the Committee feels that the present system of selection of Blocks and then villages leads to some delay and much time is lost in selection of villages. To do way with this it is recommended that advance screening should be done taking into consideration the necessary criteria to select the right type of villages where the programme can be implemented and necessary atmosphere created and then the Blocks should be commissioned. In other words, advance planning is essential for opening new ANP Blocks.

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CHAPTER IX

UTILISATION OF ASSISTANCE AFFORDED BY INTERNATIONAL AGENCIES

9.1. The main interest of the United Nations Children's Fund is to provide assistance in health programme and identifying the problem of education of the child since it is a children's agency. The other specialised agencies of the United Nations such as FAO, WHO, also collaborate for proper execution of the programme. These agencies have really helped us in a substantial way in giving start to the Applied Nutrition Programme.

9.2. For improving the cultivation and increasing the yield of vegetables, fruits, pulses, etc., the UNICEF provides assistance to the selected blocks in the form of pumpsets, few sets of garden tools, vehicles, poultry and fisheries equipment for inland and coastal fisheries blocks. The Ice Plant and Cold storage equipment in Bassein Block of Thana District has been supplied, we were told, by the UNICEF under the fisheries component under ANP. It is hoped that similar assistance in the form of Ice Plant and cold storage equipment would be forthcoming from the UNICEF to the other coastal fisheries Blocks. Its assistance to the training institutions consists of teaching materials, culinary, laboratory and audio-visual equipment as well as transport facilities. For development of marine fishing in the coastal area of the State, the UNICEF provides substantial assistance where this can be linked up with the supplementary feeding programmes of children and mothers.

9.3. The UNICEF arranges supply of imported and some locally produced equipment direct to the consignees and generally it is being supplied in time except for some delay in shipment or diversion of the equipment to some other State. The 19 Blocks of 1969-70 and 10 Blocks of 1970-71 series were not yet supplied with vehicles and the Block Development Officers of such Blocks visited by us mentioned this to us. It is gathered that some jeeps allotted to ANP Blocks in our State have been diverted by UNICEF to East Pakistan Refugees Emergency Programme at the request of the Government of India. We were told that UNICEF was committed to supply these vehicles to these Blocks and they would be released shortly.

9.4. The Committee feels that such of the equipment which is likely to take considerable time for supply and delay the start of that activity may be authorised to be purchased locally as most of the equipments are nowadays available in India.

9.5. During our visits we have noticed that the poultry equipment like incubators, brooders, etc. supplied to Blocks by the UNICEF could not be fully utilised as the establishment of Block poultry unit for incubation of eggs

as well as for rearing chics was not undertaken as envisaged in the subsidiary Plan of Operations. The Government, therefore, decided to discontinue further supply of poultry equipment to new programme Blocks and to pool the equipment already supplied in the nearest Central Hatchery. During the course of our field visits and deliberations we have come across such unutilised poultry equipment deposited at the Central Hatcheries. It is understood that the UNICEF intended to divert this equipment to other States. Since this equipment could be gainfully utilised for promoting poultry development activity of the Department, we recommend that this equipment supplied under the Applied Nutrition Programme should be allowed to be used for the departmental schemes under Agriculture and Co-operation Department in the Intensive Poultry Development Blocks instead of being diverted to other States as the Department is expected to look after the small Units. The question of obtaining alternative equipment in lieu of poultry equipment from the UNICEF was, it is learnt, being examined by Government in consultation with the Director of Animal Husbandry. The Committee feels that this may not be necessary now on large scale, because of the new type of poultry scheme of upgrading deshi birds contemplated by the Directorate of Animal Husbandry and also recommended by us elsewhere in this report. We, however, recommend that the savings on account of poultry equipment in respect of UNICEF's commitment as per Plan of Operations should be fruitfully utilised in proposing some other alternative equipment for the production component under ANP. This needs to be examined by Government in consultation with technical Heads and also with the concurrence of UNICEF.

9.6. We feel that the question of revising some of the horticultural equipment viz., garden tools etc. also needs to be considered as some of the modern tools like forks and hoes are not being used in villages though it is considered necessary to adopt these latest tools in lieu of age-old and out-dated tools. In lieu of some of these tools, a scyth and sickle and light plastic buckets and watering Cans (Zari) for watering the school garden by school children may be supplied.

9.7. As regards imported jeeps being supplied to blocks, the general feeling is that four wheel drive jeeps may be supplied in view of the difficult terrain and inaccessibility of some of the ANP villages though the present two wheel drive vehicles are more economical in their consumption of petrol. It is understood that UNICEF have recently collected information from the State Government regarding supply of four wheel drive jeeps to the series of Blocks which have not yet been supplied with vehicles and which are situated on hilly tracks. It is hoped that this requirement would be fulfilled by the UNICEF.

9.8. On the subject of utilisation of UNICEF and other equipment the difficulty experienced in the field as explained to us during our field visits is that adequate arrangements for maintenance of ANP vehicles and equipment are not made. It was pointed out that the vehicles in the ANP blocks are not maintained upto expectations by the Transport Section of the Public Health

Department at Pune which has facilities for the purpose. We were told that the Public Health Unit (Transport Section) set up at Pune was not mainly concerned with major repairs as was commonly understood. That unit mainly was incharge of purchase of tyres and tubes, batteries, etc. in bulk to effect overall savings in expenditure and effect very minor repairs. The UNICEF, we were told, also supplies spare parts for vehicles which are not available in India. These are required to be indented well in advance. The Public Health Transport Unit at Pune was mainly concentrating on supply of parts and attending to petty repairs because it did not have full-time staff to attend to the major repairs. Considering the condition of the ANP vehicles in Blocks and the vehicles supplied to the Training Institutions, which we had occasion to observe, we feel that this question should be settled on a priority basis, so that the delay in repairing the broken down vehicles could be avoided. The sub-units set up at few district places in the State also need to be made more effective to ensure that there is no occasion for the vehicles to be sent for repairs all the way of Pune from long distances. Some other via media, we feel also needs to be evolved to avoid the inordinate delays in repairs and in putting the vehicles in perfect condition. At some places we noticed that some vehicles had gone out of order for a long time with the result that it has adverse effect on the programme.

9.9. The UNICEF may consider the possibility of arranging timely and adequate supplies of spare parts for repairs and maintenance of the vehicles as some spare parts are not readily available in the local markets due to the fact that the vehicles supplied are all imported ones.

9.10. It is understood that at present spare parts like tyres, tubes, batteries, etc. are being stocked by the Public Health Department at Pune and complaints have been received from the Block Development Officers that they are not being timely made available for the ANP vehicles. This situation needs to be remedied.

9.11. It was also pointed out to us that the programme of installation of pump sets has been hampered in some cases as the Electricity Board did not give electric power connections to the installation in good time. It is recommended that the Electricity Board should be requested to give due priority for giving such connections.

9.12. The Committee has also come across instances in the Blocks where the pump-sets requisitioned by the Block Development Officers under ANP were not put to use for some reason or the other. This is an unhappy situation and needs to be remedied forthwith.

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CHAPTER X

TECHNICAL GUIDANCE

10.1. Technical guidance for the implementation of the ANP is one of the basic factors but during our spot visits to the district Headquarters/Zilla Parishads/ANP blocks, villages we ascertained the existing position in this respect and the consensus was that very little guidance is actually given to the villagers. In the matter of Horticulture, Poultry and Fisheries, the district officers and below did not render adequate technical guidance. The result has been that the programme has received a set back. At some places during our visit it was expressed that the villagers or the block authorities never approached the district authorities for technical guidance. This has also close relation with the co-ordination of the programme which point is dealt with subsequently in this report. The fact remains that the components like Horticulture, Pisciculture and Poultry being technical, obviously needed guidance of the regional/district heads and Extension Officers and the Committee felt that had that guidance been made available to the villages and villagers in time the respective component under the Poultry and Horticulture could have succeeded to a large extent. There is no systematic inspections, visits, follow-up and discussions with office bearers of the Panchayat Samitis/Village Panchayats or guidance given either by the district Heads or Heads of the Government departments with the result that the programmes like ANP cannot be implemented in a systematic manner. We, however, feel that it is absolutely necessary to ensure close liaison between State level officers and Regional Heads on one hand and the Zilla Parishads, District Officers and the non-officials on the other hand. This would go a long way in solving the difficulties and offering necessary advice so that the ANP blocks or the villages/village Panchayats would feel encouraged in the implementation of the programme. What is really required is intimate contact between office bearers of Panchayat Samiti and officers of Government technical departments and also at district level.

10.2. We are of the opinion that all extension work regarding ANP should be done through the Panchayat Samiti (ANP blocks)/Village Panchayats (ANP villages) and through the voluntary agencies. This follows as a consequence of one of the main reasons for the creation of Panchayati Raj institutions, viz., to inspire and ensure greater and active public participation in development work. We did observe on the part of technical departments of Government to try to organise themselves in vertical manner from the villages to State level. This tendency is detrimental to the progress of developmental schemes including ANP. The concerned Government Heads of departments viz., Director of Agriculture, Director of Animal Husbandry, Director of Education, Director of Health Services, Director of Fisheries, etc. the district Head of departments and the Extension Officers, viz. Extension Officer

(Agriculture), Extension Officer (Animal Husbandry), should ensure proper co-ordination and render the necessary technical guidance to the implementing authorities and the beneficiaries. ANP can also be looked into by them during their normal tours to the blocks and the shortfalls, if any, reported to the higher authorities for action.

It is observed that the Evaluation Committee on Panchayati Raj has also made a mention in para 12.15 of its report about the unsatisfactory position of technical guidance by Heads of Government Departments which position needs to be improved.

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CHAPTER XI

DIETARY HABITS, DEMONSTRATION AND FEEDING PROGRAMME

Dietary Habits

11.1. Dietary habits obviously do not spring full-blown. They are gradually developed from infancy through childhood by types of influences cited and by others; some favourable and some unfavourable. Basic influences in formation of food habits include *inter-alia* the family eating practices, social customs, traditions, etc. The food habits, as will be seen, begin at birth. Therefore, the sooner a child is surrounded with influences that encourage good food habits, the better are its chances to develop a normal eating pattern having balanced diet and adopt the same during its life time. Balancing these considerations, emphasis has been laid in this programme to educate the pre-school and school going children in the consumption of nutritive food and balanced diet.

11.2. Change in food habits is necessary to eradicate malnutrition in the rural areas as has been said in the earlier chapters. The general forms of malnutrition are dietary deficiencies, dietary excesses and dietary imbalances. There are various methods of trying to assess the nutritive value of human diet. Obtaining the information in the form of questionnaire is one which may be effective in areas where the literacy percentage is higher. Our experience about the response to the questionnaire drawn up by the Committee in this regard is rather disappointing.

11.3. One of the methods by which this can be assessed is by carrying out dietary surveys. In a few selected programme Blocks, dietary, clinical and simple economic surveys were carried out before the actual implementation or just immediately after the programme was launched in the selected villages. Surveys of prevailing food habits are necessary to find out the proteins, vitamins and other nutritional deficiencies and arrange supply of these diets which process is helpful to the nutritional development. It was observed that such surveys were carried out only in a few representative Blocks from all the four Revenue Divisions of the State due to the fact that the dietary habits were more or less similar in each region.

11.4. The survey work was, in the initial stages, carried out through the Department of Nutrition and Biochemistry of the Haffkine Institute, Bombay but consequent upon the reorganisation of Health Department in December 1970, the section has since been transferred to Nagpur. The Public Health Institute, Nagpur, is now entrusted with that work.

The Government had entrusted the work of carrying out survey in six Blocks to the Gram Sevaks and Mukhya Sevikas to whom detailed instructions were issued for guidance. Suitable *proformae* were also prescribed for

being filled up with instructions to obtain guidance, if necessary from the Haffkine Institute, Bombay. But it was observed that such reports were not received from most of the Blocks for some reason or the other and hence this work had to be entrusted to the Haffkine Institute.

11.5. The Plan of operations provides for organisation of baseline dietary, clinical and simple economic surveys in the selected villages of each block before the inauguration of the programme and thereafter carry out concurrent appraisal of the progress on a simple basis at annual intervals during the project period. Accordingly, dietary survey has been carried out recently in respect of few blocks from different regions of the State out of which five blocks are common for the concurrent appraisal. The recent dietary survey report prepared by the Nutrition wing of Public Health Institute, Nagpur, has been made available to us (extracts appended as Appendices F and F-I) and we find that the change in the food habits of the people is gradual. In some families the consumption of proteinous items of food has increased but marginally; whereas in some families there is slight improvement and at other families and places surveyed it is stagnant. Of course, consumption of protective food is linked up with the production components under the ANP and economic conditions of the families also because at some places we found that consumption of milk *per capita* in 1969 was more; whereas this has decreased subsequently according to the present report. This is probably due to high cost of milk which the villagers can ill-afford to purchase. In this context it is necessary to mention that the Committee has already recommended the introduction of dairy component under ANP in the earlier chapter of the Report. The Committee feels that since the programme has been restricted for the present to only 880 villages out of the total number of 35,851 villages in the State according to the 1961 Census figures, this activity forms about one-fortieth of the total number of villages in the State. The ANP gardens and school gardens have not covered all the ANP villages fully due to the difficulties enlisted in the earlier chapter. We, however, observed that, based on the discussions which we had with the villagers, during our field visits, the consumption of green leafy vegetables and the raw vegetables (according to their availability) has considerably increased in the programme villages. The villagers also admitted in general that before the introduction of this programme they had not realised the importance of the consumption of green leafy and raw vegetables e.g. tomatoes etc. But since the time they were told about the utility of the nutritive contents of these vegetables through the ANP training and demonstration they have started consuming them in their daily diets. Prior to the introduction of ANP they were selling these products grown in their fields and not consuming them in their families. We were told by the Mahila Mandal members and other prominent members in villages that they have also started taking interest particularly in regard to the method of cooking, etc. through which the nutritive contents are not lost but preserved. But still, we feel that the programme should be gingered up so as to take it to every family in the village with a view to combating the malnutrition and also achieve the ultimate objectives under the programme.

11.6: It was felt that the main object in carrying out these surveys of providing guidance for new adaptations in the production and consumption of protective foods has not been achieved. After these initial surveys, it was also necessary to carry out concurrent appraisal at annual intervals during the project period which has not been done so far. We recommend that the dietary surveys and concurrent appraisal should be carried out by the Public Health Institute, Nagpur at fixed intervals in the maximum number of ANP Blocks/Villages, in a phased manner in close collaboration with the District Health Officer of the district.

11.7. After knowing the results of the base-line survey about the dietary deficiency of consumption of a particular type of vegetable, it should have been possible to recommend the production of vegetables and fruits in that village which it was most essential in the interest of the villagers taking into consideration the deficiency in respect of intake of proteins and minerals of the concerned individuals. The dietary survey should aim at giving information about the population, household and cropping pattern etc. to facilitate recommendation of necessary suggestion for making suitable changes in the dietary habits, production of protective foods under horticulture, poultry and fishery activity of the programme. The study should also be able to indicate the nutritional requirements of adults and children and proper ways of conserving and cooking food.

Demonstration Feeding Programmes

11.8. Educational demonstration feeding programme has been started in the majority of the ANP Blocks opened up to the year 1968-69. However, it was observed that the feeding programmes were not arranged at regular intervals and the recipes reported to have been given were also not of the requisite standard of nutrition. The feeding programmes were more or less sporadic in nature. This is mainly due to the irregular and inadequate supply of raw material/produce from the production units. As a result of the general failure of the poultry component in all the villages the eggs from poultry units could not be obtained for the feeding programme as anticipated, except at very few places like Khuldabad Block in Aurangabad District visited by the Committee. The local Mahila Mandals also did not maintain continuous sufficient interest in the demonstration feeding in most of the programme villages. The demonstration feeding programme, therefore, needs to be regularly arranged at proper intervals and should mostly contain the produce from the school/community gardens or the village poultry under the ANP. We have also found during the course of our deliberations and field visits that the cooking utensils for which financial assistance was given by the State Government, were not fully and properly utilised by Mahila Mandals and also in few training centres we found that duplicate sets of utensils supplied by UNICEF were lying idle. The utensils have been given by UNICEF and State Government as a part of the assistance for the programme and it is necessary to ensure through the Block agency and also through the voluntary agencies that they are put to proper use.

The demonstrations should also be held at regular intervals and on specified days keeping in view the production cycle in the programme villages.

11.9. The activity of the State Social Welfare Advisory Board with regard to the demonstration feeding programme under the Family and Child Welfare Project which the Committee had an occasion to see in few ANP villages is really commendable. At present, certain villages are covered by both the ANP and Family and Child Welfare Scheme where the Balwadi feeding is arranged. Regular Balwadi feeding is of course possible under Family and Child Welfare Projects because of the sumptuous grants being released to these Projects by the State Social Welfare Advisory Board under the programme and purchase of feeding material from the open market without any dependence on the production component. If there is a proper co-ordination between the ANP and the Centre and sub-Centres of the Family and Child Welfare Project, this would help the continuity of arranging regular demonstration feeding programmes. We have observed that due to improper maintenance of the production units under the ANP, the feeding programme has received a set-back and at the places where it is reported to be going on well it is mainly done out of the grants given by the Village Panchayats voluntarily or the help given by the local agencies in cash or kind and also the interest taken by the Sarpanch, the villagers and the Mahila Mandals. This is also co-related to our earlier observations that the voluntary agencies need to be activated. Merely running the programme so long as the Government grants are available will not be a conducive step for the successful implementation of the programme. It is, therefore, necessary for the voluntary organisations and the Sarpanchas and other active members of the village to re-ignite the interest under the programme or sustain it so that the programme could go a long way in achieving ultimate objective. At some places visited by the Committee, it was noticed that proper Registers regarding attendance and the cost on feeding programmes, etc. were not maintained and wherever they were maintained the position revealed that there was a long gap between the feeding programmes. The Village Panchayat or the voluntary agencies like Mahila Mandals in the villages should be asked to set right the position including the maintenance of proper accounts. Here also we feel that maximum publicity to the ANP by way of demonstrations needs to be given instead of giving stress on the theoretical aspect of the programme. The Committee feels that this will be achieved by holding peripatetic training camps, as recommended earlier.

CHAPTER XII

WHETHER THE EXISTING OPERATIONAL PERIOD OF APPLIED NUTRITION PROGRAMME IS ADEQUATE

Applied Nutrition Programme After the Project Period

12.1. Under the present orders the scheme of Applied Nutrition Programme is to be implemented in the blocks for a period of five years during which the funds from the Government of India as well as State Government are given to the blocks. In addition we also receive help in the form of equipment and expenditure on training from the UNICEF, viz. jeeps, agricultural implements, poultry equipment, etc.

12.2. Time and again the question as to the future of the Applied Nutrition Programme after the project period has come up for discussion at the various conferences both at the level of the State Government and the Government of India but the question has not been decided as yet. The Committee also discussed this issue with the office bearers of the Zilla Parishads and the experienced Chief Executive Officers and also the Block Development Officers. The consensus of the opinion expressed has been that the existing period of operation of five years for Applied Nutrition Programme block is insufficient for the following reasons :—

(i) Two or three years period is lost actually in completing preliminaries like procurement of land, digging of wells, fencing, construction of engine sheds, fitting of pumping sets and making efforts on land development activity. Thus the remaining period of 2 to 3 years falls short for proper implementation of the programme and this is one of the reasons why the Applied Nutrition Programme activity did not reach the stage of self sufficiency as contemplated within the existing operational period.

(ii) The period of operation of Applied Nutrition Programme block should be split up into two stages, viz, Stage I and Stage II or pre-extension Stage and Stage I etc.

We are convinced that there is some force in the arguments advanced in this behalf. Even otherwise, as we see, the State Government have extended the period of Community Development blocks because there were unspent and un-allotted balances and the works were incomplete. On the same lines the State Government have also extended the period of operation beyond five years in respect of Applied Nutrition Programme blocks opened during 1965-66 and 1966-67. The Committee, therefore, recommends that the period of operation of Applied Nutrition Programme block should be eight years.

The first three years should be treated as pre-extension stage and the remaining period would be subsequent stage. The State Government may suitably prescribe the allotment of funds to the different stages within the ceiling.

12.3. An important point which the Committee was confronted with, is that the activities of the Applied Nutrition Programme after the project period. It is alright that the existing operational period is extended beyond five years but what ultimately happens after the operational period say after eight years when grant from the Government of India, State Government and the help from the UNICEF ceases ? Will the applied Nutrition Programme objectives attain the stage of self-sufficiency even after 8 years is a point to be considered. We feel that the proposed operational period of eight years would provide sufficient latitude to make the production units self-sufficient if the programme is implemented on the lines of the recommendations/observations made by the Committee in this report.

12.4. The Committee during its deliberations has also considered the question as to the agency which should continue the programme after the project period. During our discussions with the Presidents of the Zilla Parishads, Chairmen of the Subjects Committees and the experienced Chief Executive Officers, their opinion on the issue whether the Zilla Parishads will be able to take over the scheme after the project period was, however, divided. The office-bearers of the Zilla Parishads contented that in view of the depleted financial position of the Zilla Parishads, it may not be possible for them to run the activities without Government grants; whereas, certain experienced Chief Executive Officers and few office bearers were of the opinion that since the non-recurring items like development of land, fencing, engine shed, electric motors/oil engines and wells, will have already been completed out of Government grants/UNICEF aid the activity will be at a take-off stage where there should not be any objection for a Zilla Parishad to take over the scheme under section 100 of the Maharashtra Zilla Parishads and Panchayat Samitis Act, 1961. This item, we were told, was also raised in the fifth State Level Co-ordination Committee on Applied Nutrition Programme meeting held at Bombay on the 10th June 1971. We consider that equitable course would be to entrust this programme to the Zilla Parishads after the operational period is over. Incidentally, regarding the expenditure on one driver and three Gram Sevikas in each Applied Nutrition Programme block under the scheme and the maintenance of vehicles also, there should not be any difficulty for the Zilla Parishad to take over the staff and maintain the vehicle. We understand that there are number of vacancies in the cadre of Gram Sevikas which posts fall in the District Services and the Chief Executive Officers can very well utilise the existing Applied Nutrition Programme Gram Sevikas in the vacancies in the district for other developmental activities and also in the newly proposed ANP Blocks, if any. We were also told that the future of Applied Nutrition Programme has not been finally decided by the Government of India as yet. It is also not known what will happen to the UNICEF equipment like vehicles, garden tools, pumping sets, poultry equipment etc. We hope that they would continue to remain with the State Government/beneficiaries.

CHAPTER XIII

ADMINISTRATION AND CO-ORDINATION

Administrative Matters

13.1. The existing administrative machinery at the State level, which looks after the Applied Nutrition Programme is Secretary to Government, Deputy Secretary to Government, Under Secretary to Government and the Officer on Special Duty in the Rural Development Department. It is understood that the post of State Level Lady Nutrition Officer could not be filled in for want of finalisation of recruitment rules. We recommend that in the interest of the speedy implementation of the programme this post should be filled in as early as possible.

13.2. At the regional level, at present there are two posts of Regional Lady Project Officers in the State. There is a total of 88 Applied Nutrition Programme blocks in operation covering roughly 880 villages. With only two Regional Lady Projects Officers each has to cover about 440 villages a year which is physically impossible. It is, therefore, necessary to improve the situation by sanctioning additional posts.

13.3. The Applied Nutrition Programme is an expanding programme and the work-load of the existing Regional Lady Project Officers is increasing day by day. At present the posts of Regional Lady Project Officer are Class II posts carrying a pay-scale of Rs. 300—830 (which is the same as that of the Block Development Officer). Since the jurisdiction of the Regional Lady Project Officers is large and heavy and the day-to-day programme is also expanding, the Regional Lady Project Officers are required to shoulder much higher responsibilities. At present the posts being in Class II, i.e., on par with the Block Development Officers, the effectiveness of their supervision over 88 Block Development Officers of the same rank and their liaison over other districts agencies connected with the Applied Nutrition Programme (such as poultry, fisheries and horticulture) is rendered weak.

13.4. The Regional Lady Project Officers are required to guide and supervise the work of the Block Development Officers and other district functionaries. Unless, therefore, they have adequate status, it would be unreasonable to expect from them the proper supervision over all Block Development Officers' work and other district agencies for implementing the programme. The Committee, therefore, feels that the posts of Regional Lady Project Officers should be upgraded to that of higher grade Block Development Officers in the pay-scale of Rs. 410—1200. The Committee also considers it necessary to increase the existing number of Regional Lady Project Officers which are quite insufficient from two to four, at least for the present.

13.5. It is understood that the expenditure on pay and allowances of the existing two posts of Regional Lady Project Officers was reimbursed by the UNICEF. In view of the Committee's recommendations to extend the operational period of the Applied Nutrition Programme Block and on account of the addition of new Applied Nutrition Programme Blocks every year according to the allotment by the Government of India, we feel that the UNICEF may continue to provide financial assistance as hitherto before including the proposed additional posts for the remaining Divisions.

13.6. It was noticed and also pointed out to the Committee during its field visits and discussions with the various authorities that the health agencies including the Primary Health Centres were not being used to the fullest extent in furthering the programme. The function of the Primary Health Centre in the field of nutrition is identical with that of Applied Nutrition Organisation. The District Health Officers at some places visited by the Committee expressed that they had no idea about this programme. In fact, they are already ordered to be involved in the programme. The Auxiliary Nurse Midwives, Sanitary Inspectors and the District Health Officers are actually given training in Applied Nutrition Programme. The role of the Auxiliary Nurse Midwives is actually to advise ladies during pre-natal and post-natal stages. But this agency, it was noticed, did not get involved in the programme to the extent expected of them in spite of training in Applied Nutrition Programme given to them. This appears to be obviously because of the lack of co-ordination at all levels. In fact, the children and mothers in the villages are to be selected for demonstration feeding on the recommendation of the Medical Officers. We were also told that the Medical Officers did not pay frequent visits to the villages for check-ups. This needs to be done. So also Sanitary Inspectors who are not being involved for the educational activities under Applied Nutrition Programme should be so involved.

13.7. In the absence of the periodical check-up by the Medical Officers of the beneficiaries under the programme, it becomes difficult also to determine the exact impact of feeding on the health of the children and ladies.

Suggestions were also made from some quarters that independent Extension Officers should be given for each Applied Nutrition Programme block. So also one independent Gram Sevika be given for each Applied Nutrition Programme village. We have considered the feasibility of this proposal and have come to the conclusion that there is no need at all for this extra staff, over and above the normal staff sanctioned under Applied Nutrition Programme and the other normal staff of the block involved in Applied Nutrition Programme.

13.8. The following recommendations are made with regard to administrative matters :—

- (1) Frequent transfers of key personnel, viz., Block Development Officers and Mukhya Sevikas who have been trained in Applied Nutrition Programme should be avoided.

(2) Planning Officer of Zilla Parishad should be held responsible for the successful implementation of the programme. He should try to achieve the maximum co-ordination, exercise supervision and control over the staff. During his tours to the Applied Nutrition Programme blocks all the ten villages should be visited by him and his report sent to Government every month through the Chief Executive Officer. He must visit at least one Applied Nutrition Programme block every month.

(3) The concerned heads of the departments of the Zilla Parishads should also visit the Applied Nutrition Programme blocks and some programme villages, once in every quarter and give suitable guidance wherever necessary.

(4) Full compliment of staff sanctioned for Applied Nutrition Programme in the block should be appointed. The posts of Mukhya Sevikas and Gram Sevikas should not be allowed to remain vacant for long duration.

(5) Monthly review of the Applied Nutrition Programme be taken by the Agricultural Subject Committees of the Zilla Parishads and the Standing Committees of Zilla Parishads should take a quarterly review so as to channelise the active co-operation of all the concerned departments in the programme.

(6) Quarterly regional meetings should be continued to be conducted by the Rural Development Department to review the progress of expenditure and achievements in the blocks. The poor performance of the blocks should be brought to the notice of the Divisional Commissioners and the Chief Executive Officers.

(7) The importance of the Applied Nutrition Programme should be stressed before the villagers at the time of Gram Sabha meetings which are statutory. As observed by the Evaluation Committee on Panchayati Raj in para. 13.23 of its report, if possible, films and cultural programmes on Applied Nutrition Programme should be exhibited to impress upon them the need for Applied Nutrition Programme.

Co-ordination

13.9. During the course of our discussions with the office-bearers of the Zilla Parishads it was boldly accepted by few Presidents of the Zilla Parishads and the Chairmen of the Panchayat Samitis that they did not pay the requisite attention towards the implementation of the Applied Nutrition Programme. In fact, in the democratic set-up the people look forward to their elected representatives to promote and guide the developmental programmes and activities. We, however, hope that the office-bearers of the Zilla Parishads, Panchayat Samitis and Village Panchayats pay sufficient attention towards this vital programme which is of national importance, the success of which entirely depends on their active participation.

13.10. Administrative co-ordination at the State, district, block and village level is the key factor in effective programme implementation. Identification of problems of policy and operation, regularity in the holding of meetings of various co-ordination committees and consistent follow-up to secure adequate implementation of the decisions are necessary. The Committee feels that there is greater scope for co-ordination at all levels right from the village level to the district level. Further, the important agencies, viz., District Health Organisations, the District Animal Husbandry Officers and the Agriculture Development Officers do not seem to have been involved and adequately utilised to the desired extent in the programme, with the result that the programme has received a set-back at some places. Although the Plan of Operations envisages establishment of Co-ordination Committees at the State level, district level, taluka level and also the village level, the Evaluation Committee has hardly come across any co-ordination committee at the village level. In one of the Applied Nutrition Programme villages in Ambegaon block we had found that the Village Panchayat had formed ad-hoc Advisory Committees in respect of Applied Nutrition Programme, Health, Education, etc. What is required is a systematic approach to the programme right from the village level. It appears that this need is imperative and felt more at the village level. The Sarpanch, the Mukhya Sevika, the school teacher and prominent members of the Mahila Mandals, youth workers, etc. should form a committee at the village level and ensure greater co-ordination by reviewing the progress from time to time.

13.11. So also at the block level there is equally a need for greater co-ordination but the Extension Officer (Animal Husbandry) and the Extension Officer (Agriculture), Mukhya Sevika and the Gram Sevikas should be actively involved in the programme to a considerable extent. For this purpose monthly co-ordination meetings (separate from the monthly meetings of the Panchayat Samiti) at the block level need to be held in order to establish a liaison between the Block Development Officer and the Extension Officer concerned, and also the ground level functionaries in the villages. If there are any difficulties in the matter they could be referred to the district heads sitting in the Zilla Parishads or the State heads of departments or Government, as the case may be.

13.12. At the State level also we find that there has been set up a Co-ordination Committee for Applied Nutrition Programme. But, unfortunately, for some reason or the other it could not meet at frequent intervals as stipulated in the orders. We, however, found that the State level Co-ordination Committee had last met in June 1971.

13.13. From whatever we have observed during our visits and discussions, etc., we found that there is necessity for co-ordination at the Divisional level for the Applied Nutrition Programme, which link is missing at present. At the Divisional level we have the Deputy Commissioner and also the Regional Lady Project Officer to co-ordinate the programme. We, therefore, propose that in the Divisional Co-ordination meeting the Applied Nutrition Programme should also be reviewed, say, twice a year.

CHAPTER XIV

IMPACT OF ' APPLIED NUTRITION PROGRAMME ' ON THE PEOPLE

14.1. It has already been stated in the earlier chapter that since the response to the questionnaire was poor the observations of the Committee are based on the unstructural interviews and the discussions with the office-bearers and officers of the Zilla Parishads and field visits of the Committee.

14.2. There has been unanimity about the awareness of the ANP in the ANP Blocks. The views expressed through replies to the questionnaire as well as the visits of the Evaluation Committee have shown that impact of Applied Nutrition Programme has just started. It could, therefore, be said that it is in a take-off stage and with more efforts at the hands of voluntary organisations, office-bearers of the Panchayati Raj institutions and officials involved in the programme it appears that there should not be any difficulty in achieving the desired objective. A statement showing the programme achievements since inception will March 1971 in the matter of coverage, horticulture, poultry, pisciculture, feeding programme and youth and women's programme is appended (Appendix-E). In few villages the Committee was really impressed to see the introduction of green leafy vegetables and crops like soyabeans and fruits like papaya and guavas which were not grown before in the village gardens. This shows that although the progress is slow it has started catching roots at some places. One or two Chief Executive Officers of Zilla Parishads have emphatically said that the programme has failed because we were not successful in catching the public image as such in this direction. The scrutiny of the replies to the questionnaire also indicates that the economic conditions of the masses prevent them from consumption of nutritious substances. But this argument can hardly be accepted because in this programme the beneficiaries have themselves to build up production through nutrition, education and ultimately consume the produce. By and large, the Committee has observed that where any of the agencies like Sarpanch, Gram Sevika, Mukhya Sevika, Mahila Mandal or Block Development Officer was active and enthusiastic the programme has been successful to a great extent in so far as the Horticulture and Fishery components are concerned.

14.3. The Committee has also observed that in ANP villages which are covered by the Family and Child Welfare Scheme promoted by the State Social Welfare Advisory Board, the impact regarding ANP has been really good. The centres get more funds from the Board including recreational and educative items like tricycles, etc. A few examples that could be quoted are Nasrapur in Bhor Panchayat Samiti (Pune District), Babhulgaon in Pandharpur Panchayat Samiti (District Sholapur) and Kurza in Brahmmapuri Panchayat Samiti (District Chandrapur).

14.4. The Committee feels that the centres/sub-centres opened by the State Social Welfare Advisory Board under the Family and Child Welfare Scheme, in the blocks, should be rotated say, after a period of 5 years or so, to coincide with the activities of ANP in ANP villages in the same block. This will not only expand the activity of the Board but will also help in boosting the activities under ANP and benefit the new villages with the Family and Child Welfare activity.

CHAPTER XV

CONCLUSION

15.1. We have now come to the end of our labours. Our study on the working of the ANP has shown that this programme is a 'must' for the country in general and our State in particular because malnutrition and under nutrition constitute serious hazards to the growth and development of children, particularly infants and pre-school children. Recent surveys indicate that nearly two thirds of expectant mothers and pre-school age children belonging to poor sections of the community residing in backward areas suffer from serious malnutrition and most of such children will also be on the brink of permanent blindness due to lack of enough Vitamin A in the diet. This programme should, therefore, continue.

15.2. However, we have observed that due to the several factors, like wrong selection of villages, non-availability of land, lack of adequate irrigation facilities, inadequate publicity and propaganda, non-involvement of the office-bearers, lack of participation of the voluntary agencies in the programme, lack of technical guidance, co-ordination at the district, block and village level, etc., the different components of the programme particularly the productive ones could not succeed to the desired extent. Poultry activity has been a failure. Ultimately, when the production was not upto expectation it has corresponding effect on the consumption also. But we did notice during the course of our field visits nutritional awareness in the masses about this programme and one thing could be said in favour of the programme that the important objective behind the Applied Nutrition Programme, viz., promoting nutrition education has been achieved to a considerable extent. Of course, this programme is comparatively a new one and needs to be still owned by people. For this, as already mentioned earlier in this report, extensive mass publicity needs to be carried out.

15.3. We have tried to cover all the items of the terms of reference laid down by Government. One of the terms of reference is whether the expenditure incurred so far on the different components is commensurate with the results achieved. It will be found that the Applied Nutrition Programme is basically an educational programme and like other programmes, it is not possible to assess the economic gains in terms of commercial profit. The expenditure mostly to be incurred on the production component is with a view to educating the masses in the matter of production of protective food and their consumption. ANP is not a relief programme or a feeding project; nor it is a curative programme for sick, malnourished people or for children and women alone. It is mainly a programme for educating people on how they could help themselves to be healthy. By and large, we feel, that the expenditure incurred is commensurate with the results achieved to the extent of awareness created in the minds of the rural masses about the programme.

A summary of our recommendations is given in Part II of this Report

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Bombay, 30th October 1971.

PART II

**A SUMMARY OF THE MAIN RECOMMENDATIONS OF THE
EVALUATION COMMITTEE ON APPLIED NUTRITION
PROGRAMME**

| Recommendations | Para No. of Committee's Report | | | | | | | | | |
|---|--|-----------------|---|---|---|---|------------------|------------------|--|--|
| 1 The Public Health Institute, Nagpur can be expanded and converted into the State Institute of Nutrition Education and Research. | 4-2 | | | | | | | | | |
| 2 Dual control over the schemes retained in the State sector retards their speedy implementation. With a view to achieving effective and speedy implementation of training component under Applied Nutrition Programme the schemes of seed farms and Applied Nutrition Programme training at present retained in the State sector should be transferred to respective Krishi Vidyapeeths. | 4-5 | | | | | | | | | |
| 3 The follow-up of trained personnel, especially the ground level functionaries needs to be at frequent intervals! | 4-7 | | | | | | | | | |
| 4 The duration of 21 days training for Medical Officers in-charge of Primary Health Centres should be reduced to Thirteen days giving stress on their job responsibilities. There should be four types of duration of training under ANP viz. ;— | 4-8 | | | | | | | | | |
| <table border="0" style="margin-left: 40px;"> <tr> <td style="vertical-align: middle;"> <table border="0"> <tr> <td>(1) upto 6 days</td> <td rowspan="4" style="font-size: 3em; vertical-align: middle;">}</td> <td rowspan="4" style="vertical-align: middle;">To afford holiday on Sunday for (1) to (3).</td> </tr> <tr> <td>(2) upto 13 days</td> </tr> <tr> <td>(3) upto 20 days</td> </tr> <tr> <td>(4) upto 30 days</td> </tr> </table> </td> <td></td> <td></td> </tr> </table> | <table border="0"> <tr> <td>(1) upto 6 days</td> <td rowspan="4" style="font-size: 3em; vertical-align: middle;">}</td> <td rowspan="4" style="vertical-align: middle;">To afford holiday on Sunday for (1) to (3).</td> </tr> <tr> <td>(2) upto 13 days</td> </tr> <tr> <td>(3) upto 20 days</td> </tr> <tr> <td>(4) upto 30 days</td> </tr> </table> | (1) upto 6 days | } | To afford holiday on Sunday for (1) to (3). | (2) upto 13 days | (3) upto 20 days | (4) upto 30 days | | | |
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| (2) upto 13 days | | | | | | | | | | |
| (3) upto 20 days | | | | | | | | | | |
| (4) upto 30 days | | | | | | | | | | |
| <p>The period of training should be in relation to the work the trainee has to perform after his training in actual implementation of the programme. Suitable changes in the Annexure 'A' printed on page 88 of the ANP Handbook are necessary. Sanitary Inspectors, Auxiliary Nurse Midwives should be actively involved in implementation of the programme.</p> | | | | | | | | | | |
| 5 Comprehensive training at the National Institute of Nutrition, Hyderabad, is most essential for Regional Lady Project Officers and the existing Regional Lady Project Officers should be deputed for training. | 4-9 | | | | | | | | | |
| 6 It is necessary to reorient all Extension staff in all components of ANP viz. Block Development Officers, Extension Officer (Agriculture) and (Animal Husbandry), Mukhya Sevikas, Gram Sevikas and Primary teachers with special reference to their job responsibility. | 4-9 | | | | | | | | | |

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| 7 The Assistant Deputy Educational Inspectors and District Education Officers attached to Zilla Parishads should be given ANP training. | 4-9 |
| 8 The syllabus for the various courses need to be modified with reference to new techniques. | 4-9 |
| 9 It is necessary to provide for training in maintenance of accounts | 4-9 |
| 10 It is necessary to provide effective extension machinery amongst women folk through the Mahila Mandals. | 4-12 |
| 11 Active and efficient Mahila Mandals may be given some incentive grants for organising ANP shibirs. If they are allowed to do this work voluntarily with some financial help it will be a very good media of instruction. | 4-13 |
| 12 In the one or two days shibirs, exhibitions on ANP could also be organised. Cooking competitions could be held. | 4-14 |
| 13 It is necessary to include in school curriculum the following topics : (i) Preparation for participation in production of nutritious foods, (ii) Nutrition Education. | 4-15 |
| Such a study should not, however, be by adding separate subjects to the curriculum but they should be through work experience (also see 4-17). | |
| 14 An orientation towards Agriculture must be given in all educational institutions with a view to giving impetus to Agriculture Development. | 4-16 |
| 15 The production of nutritious food, being important item, should be included as a work experience (also see 4-15). | 4-17 |
| 16 Peripatetic training camps should be organised in selected villages on pilot basis, including ladies and other members from the neighbouring villages to participate in them. This would not only create impact on the minds of villagers but also help in removing the question of backlog faced by the institutions to some extent. | 4-18 |
| 17 The training institution should be asked to hold one or two days shibirs or peripatetic training in villages to train the Mahila Mandals members, Youth Club members, Sarpanch, Primary teachers etc. The scheme of one or two days shibir or peripatetic training should be worked out on the lines of agricultural mass training and if necessary the staff requirements of the Training centres should be augmented for this purpose. | 4-18 |

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| 18 Publication under ANP specifying job responsibility for the personnel right from the higher executive officer/official to the ground level functionaries in the villages should be brought out which will go a long way in the matter of successful implementation of the programme. | 4.19 |
| 19 Adequate publicity under ANP needs to be given through mass media. | 4.20 |
| 20 It is necessary to increase the frequency of the Radio support programme and the topics under ANP through All India Radio. With a view to gaining momentum to the ANP, an independent officer may be considered for appointment at the All India Radio, Nagpur and Poona on the lines of Nabhovani Shetkari Mandal Programme. | 4.21 |
| 21 Production of effective films on ANP by Government should be expedited as they are one of the effective media of publicity among rural masses who are mostly illiterate. | 4.22 |
| 22 Projection of slides in Cinema Theatres should also be used as a part of advertisement on ANP. | 4.23 |
| 23 It is necessary to explore the possibility of institution of special columns in local dailies/weeklies for ANP. The publication 'Lok Rajya', 'Gram Vikas' etc. should be urged to bring out special numbers of Nutrition Education. | 4.24 |
| 24 A fully equipped Mobile Publicity Unit with qualified staff together with audio-visual equipments should be provided by UNICEF to each division for carrying on continuous propaganda and demonstration on ANP in villages. | 4.25 |
| 25 Games, Songs and Stories on Nutrition should be published and encouraged to be published. | 4.26 |
| 26 In securing publicity for ANP the Director of Publicity of the State should be fully involved and utilised. | 4.26 |
| 27 Printing of date calendars with nutrition schemes, may be taken up. | 4.26 |
| 28 It is necessary to prepare booklets regarding simple recipes for distribution to all concerned particularly Mahila Mandals where it would be useful for demonstration purposes. | 4.27 |
| 29 Reprinting of the booklet on recipe prepared by Smt. Kotnis, and published by Rural Development Department, should be taken up. | 4.27 |
| 30 Exhibitions on ANP should be held at Regional, District and Taluka levels as frequently as possible because of their high educative value and the impact on rural masses. | 4.28 |

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| 31 In the context of publicity and support to the ANP considering in particular the problem of malnutrition, a National Symbol on ANP on the lines of the one prescribed for Family Planning Programme is recommended. | 4.29 |
| 32 Members of Mahila Mandals who have not received training under ANP so far should be given training now. | 5.3 |
| 33 The Gram Sevika and Mukhya Sevika should make night halts in ANP villages twice a week or so and try to contact women folk at night with the help of Sarpanch and trained Applied Nutrition Programme teachers and talk to them on ANP. | 5.7 |
| 34 With a view to educating the people and also fetching monetary returns to the Mahila Mandals, a stall in the weekly bazar, of the recipes prepared should be installed. | 5.9 |
| 35 The voluntary agencies would be really active if the elected leaders in the villages including lady members in the Panchayat take interest in the developmental programmes. | 5.9 |
| 36 Greater participation from children is desirable | 6.4 |
| 37 There is scope for improving the cropping pattern in the gradens. Better utilisation of available land and greater emphasis on the more nutritious vegetables and fruits are called for. Papaya growing in school gardens can be easily extended particularly using the high yielding varieties. | 6.4 |
| 38 To make the teachers interested in the programme, the Education Department should be involved in the operation of the programme. | 6.4 |
| 39 The competitive spirit within the school and between schools, needs to be encouraged. | 6.4 |
| 40 Improved instructions in the use of imported garden tools are necessary. | 6.4 |
| 41 Appointment of a mali-cum-chowkidar or a provision for giving allowances to the staff attached to the school to keep a watch for school garden during vacation or out of school hours is necessary. | 6.4 |
| 42 The locally acceptable variety of particular vegetables must be supplied to Kitchen Gardens and this activity should be expanded through seed farms. Drive should be launched for taking up Kitchen Gardens in all ANP villages. | 6.5 |
| 43 In areas where it is difficult to acquire land for Community Gardens, a combination of school and Community garden should be tried. A mali-cum-chowkidar may be considered for appointment. | 6.7 |

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| 44) It is necessary to restrict the area of cash crops or other crops to maximum 25 per cent to 30 percent of plot and rest of the area may be utilised for vegetable and fruit crop. | 6.7 |
| 45 Community gardens need to be revitalised and put on sound footing by introduction of new cropping pattern. The wells should be deepened to ensure adequate water supply. The possibility of constructing surface wells on slopes as demonstrated in the Agriculture Institute, Kosbad, may be explored for conserving rain water for irrigation purposes. | 6.9 |
| 46 It is necessary that a cropping pattern suitable for different agro-climatic regions may be worked out for Applied Nutrition Programme gardens by Agriculture Development Officer of Zilla Parishad for continuous supply of vegetables and fruits (Also see paras 6.12; 6.19; 6.20; 6.22; 6.23 and 6.24). | 6.10 |
| 47 A campaign for planting "Shevga" (Drumstick) should be launched throughout the State. Seed farms should be encouraged to plant good quality of mother plant for continuous supply of cuttings. | 6.13 |
| 48 Papaya and Banana being quick growing fruit plants, their cultivation should be taken on large scale in ANP gardens. The technique developed by the Gram Sevak Training Centre, Kosbad for preparing Papaya Plants by germination in small bamboo baskets or plastic bags should be followed. | 6.15 |
| 49 Guava, having shown good performance in ANP, should be propagated throughout the State. | 6.16 |
| 50 Cultivation of Chiku should be propagated considering its wide range of adoptability. | 6.17 |
| 51 The Plantation of citrus crops like Mosambi (Malta), Santra (Orange), Kagdi limbu (Sour lime) and Pomegranates should be introduced in ANP gardens. | 6.18 |
| 52 Suitable cropping pattern for introduction of vegetable crops like suran, pumpkin, kohala and carrots in areas depending on monsoon should be worked out for different agro-climatic regions. (Also see paras 6.10; 6.12; 6.20; 6.22; 6.23 and 6.24). | 6.19 |
| 53 Naturely growing vegetables should be included in cropping pattern. Seeds or tubers of monsoon vegetables like 'Shevla' and 'Katval' etc. be collected and propagated on ANP seed farm and distributed to ANP gardens. (Also see paras 6.10; 6.12; 6.19; 6.22; 6.23 and 6.24). | 6.20 |
| 54 Chavali, Udid and Mug of Vaishakhi variety be grown and their dried produce used throughout the year. | 6.21 |

- 55 Soyabean and groundnut be introduced in cropping pattern. 6.22
(Also see paras 6.10; 6.12; 6.19; 6.20; 6.22; 6.23 and 6.24).
- 56 The growing of cereal crops like Jowar, Bajra, Wheat, rice and the cash crops should be gradually discontinued to restrict it to 25 per cent. to 30 per cent. only and their place taken for vegetable and fruit crops by working out suitable cropping pattern. (Also see paras 6.10; 6.12; 6.19; 6.20; 6.22 and 6.24). 6.23
- 57 A Committee should be appointed with Superintending Agricultural Officer, 3 Agriculture Development Officers of Zilla Parishads, Principal of Gramsevak Training Centre and Professor of Horticulture at Agriculture College situated in each Agricultural Division for recommending cropping pattern. The Committee should meet at least twice a year. 6.24
- 58 Greater co-ordination of coastal fisheries programme under ANP with Fisheries Department Programme is essential. The complaint regarding the marine ANP near about Bombay about the doubtfulness of the proper utilisation of the entire catch collection for the purpose should be taken note of. 6.26
- 59 The coastal fishery activity under ANP at Bassein and Shriwardhan needs to be taken up on a large scale. 6.27
- 60 The Inland Fishery should be given to all the tanks in the ANP blocks excluding coastal fisheries blocks. Pending UNICEF's approval and receipt of equipment from them, the ANP villages having tanks should be given this component of inland fishery. This will not require much expenditure. Generally such tanks are auctioned. In the ANP village the amount of lease money may be reduced suitably with the condition of contributing certain percentage of catch for demonstration feeding. 6.29
- 61 Owing to high rate of mortality in birds, lack of proper care, irregular supply of birds and also to a great extent the high cost of poultry feed, difficult marketing conditions, etc. the sophisticated type of poultry is not generally found suitable in rural areas. However, it is expedient to evolve a system suited to rural conditions in this behalf so that poultry keeping should be practical and economic proposition for such areas particularly for the benefit of the people in the low income group. The practical project in this situation is that deshi birds should be upgraded by introduction of cross bred Cocks. The intensive Poultry Development Scheme which is being considered by the Agriculture and Co-operation Department should be made applicable to Applied Nutrition Programme Blocks. 6.37 and 6.38
- 62 The condition of contribution of eggs for feeding programme may be relaxed in the new scheme to some extent. 6.39

- 63 Milk production is an important component of Applied Nutrition Programme and milk products are of prime importance as nutritive food for children and expectant mothers. It is understood that the proposed milk production project in Mahad ANP Block has already been drawn up with this background. Along with the dairy activity the improvement of milch stock, pasture and fodder development, veterinary and breeding facilities can also be achieved. Supply of equipment for milk processing should be supplied by UNICEF. In the light of the experience gained, the dairy component under Applied Nutrition Programme should be extended to other milk producing areas viz. Arvi in Wardha District, Miraj in Sangli District and Udgir in Osmanabad District. 6.40
- 64 Bee-keeping should be introduced under ANP after studying the proper flora required by the bees. 6.41
- 65 The State Government is required to make a provision of Rs. 51,000 per Block per year for horticulture and irrigation, poultry and fisheries components. The State Government is expected to take into account the overall provision and expenditure on the production components in Applied Nutrition Programme through their regular identical departmental schemes for assessing the matching contributions by State Government. The difficulty regarding apportionment of such provision/expenditure on the Applied Nutrition Programme villages and non-Applied Nutrition Programme villages within the same Block where departmental activities are common should be taken note of. 7.8
- 66 Financial assistance given to the ANP Block is adequate and no modification is considered necessary. However, Inter block adjustment in the utilisation of central assistance may be allowed to the maximum advantage. 7.10
- 67 Even after the operational period of ANP is over and there is an unspent balance left on the items qualifying for central assistance, Government of India may be moved to release the amount to that block to the extent of unspent balance. 7.11
- 68 A review should be taken of all the blocks (which have not been selected on proper lines) particularly in the initial stages so that the ineffective blocks/villages could be replaced in initial stages only. 8.4
- 69 Items like training of teachers, members of Mahila Mandals and ground level functionaries should be undertaken in the non-ANP villages to create background and then the demonstration activities can be developed through supply of seeds samples and new poultry activity. As a pilot effort in all existing ANP Blocks, 10 non-ANP adjoining villages should be commissioned. 8.6

- 70 The present system of selecting ANP blocks first and then the villages should be done away with and advance screening should be undertaken according to the prescribed criteria for selecting right type of villages and necessary atmosphere should be created and then the blocks should be commissioned. 8.7
- 71 Assistance in the form of Ice-Plant and cold storage equipment may be extended by UNICEF to the other Coastal Fisheries Blocks. 9.2
- 72 Such of the equipment which is likely to take considerable time for supply and delay the start of the activity may be authorised to be purchased locally as most of the equipment are nowadays available in India. 9.4
- 73 The Poultry equipment supplied under Applied Nutrition Programme lying unused should be allowed to be used for departmental schemes under Agriculture and Co-operation Department in the Intensive Poultry Development Blocks instead of being diverted to other States. 9.5
- 74 As a result of the proposed scheme of upgrading deshi birds the savings on account of poultry equipment in respect of UNICEF's commitment as per Plan of Operations should be fruitfully utilised in proposing some other alternative equipment for the production component under Applied Nutrition Programme. 9.5
- 75 In lieu of some of the Garden tools, a scyth and sickle and light plastic buckets and watering cans (zari) for watering the school garden through school children may be supplied. 9.6
- 76 Four wheel drive jeeps may be supplied to the Applied Nutrition Programme Blocks. 9.7
- 77 Delay in repairing the broken down vehicle, supplied under ANP by the Public Health Transport Unit, Poona should be avoided. The sub-units set up at district places need to be made more effective to ensure that there is no occasion for the vehicle to be sent for repairs for all the way to Pune from long distances. 9.8
- 78 UNICEF may consider the possibility of arranging timely and adequate supplies of spare parts for repairs and maintenance of the vehicles. 9.9
- 79 It is necessary to make available spare parts stocked by Public Health Department, Pune like tyres, tubes, batteries, etc. in time. 9.10

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| 80 Electricity Board should be requested to give due priority for giving electric connections. | 9.11 |
| 81 The pumpsets requisitioned by the Block Development Officers should be put to use. | 9.12 |
| 82 It is absolutely necessary to ensure close liaison between the State level officers and Regional Heads on one hand and the Zilla Parishad District Officers and the non-officials on the other as it would help solving difficulties in the speedy implementation of the Applied Nutrition Programme. What is really required is intimate contact between office bearers of Panchayat Samiti and officers of Government technical Departments and also at district level. | 10.1 |
| 83 All Extension work regarding Applied Nutrition Programme should be done through Panchayat Samiti, Village Panchayat and through voluntary agencies. | 10.2 |
| 84 The concerned Heads of Government Departments, Director of Agriculture, Director of Animal Husbandry, Director of Education, etc. the district Heads of Departments, Extension Officers (Agriculture) and Extension Officer (Animal Husbandry) should ensure proper co-ordination and render necessary technical guidance to the implementing authorities and beneficiaries during their normal tours and shortfalls reported to higher authorities for action. | 10.2 |
| 85 The ANP should be gingered up so as to take it to every family in the village with a view to combating the malnutrition and also to achieve the ultimate objective under the programme. | 11.5 |
| 86 The dietary surveys and concurrent appraisal should be carried out by Nutrition Section attached to the Public Health Institute, Nagpur at fixed intervals in the maximum number of ANP Blocks/Villages, in a phased manner in close collaboration with the District Health Officer of the District. | 11.6 |
| 87 The dietary survey should aim at giving information about the population, household and cropping pattern, etc., to facilitate recommending necessary suggestion for making suitable changes in the dietary habits, production of protective foods under horticulture, poultry and fishery activity of the programme. The study should also be able to indicate the nutritional requirement of adults and children and proper ways of conserving and cooking food. | 11.7 |
| 88 The demonstration feeding programmes should be regularly arranged at proper intervals and on specified days keeping in view the production cycle in the programme villages. | 11.8 |
| 89 It is necessary to ensure proper utilisation of the utensils through Block and voluntary agencies. | 11.8 |

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| 90 It is necessary to have proper co-ordination between the ANP and the Centre/sub-Centres of the Family and Child Welfare Project, which would help the continuity of regular demonstration feeding programmes. | 11.9 |
| 91 The Village Panchayat or the voluntary agencies like Mahila Mandals in the villages should be asked to maintain accounts in the proper registers regarding attendance for the feeding programme and cost incurred on them. | 11.9 |
| 92 Maximum publicity to ANP by way of demonstrations needs to be given instead of giving stress on the theoretical aspect of the programme. | 11.9 |
| 93 The period of operation of ANP Block should be eight years. First three years should be treated as pre-extension and the remaining period should be a subsequent stage. The State Government should suitably prescribe the allotment of funds to different stages within the ceiling. | 12.2 |
| 94 The equitable course would be to entrust this programme to the Zilla Parishads after the operational period is over. It should not be difficult for the Zilla Parishad to take over the staff consisting of one driver and three Gram Sevikas of each ANP block after the project period. The Gram Sevikas can be utilised in the vacancies in the District for other developmental activities and also in the newly proposed ANP Blocks, if any. | 12.4 |
| 95 UNICEF equipment like vehicles, garden tools, pumping sets, poultry equipment may continue to remain with the State Government/beneficiaries after the project period. | 12.4 |
| 96 In the interest of speedy implementation of ANP the post of State Level Lady Nutrition Officer should be filled in as early as possible. | 13.1 |
| 97 It is necessary to sanction the additional posts of Regional Lady Project Officers as it is physically impossible for the existing two Regional Lady Project Officers to supervise 88 Applied Nutrition Programme Blocks covering roughly 880 villages. The number of posts should, therefore, be increased from two to four at least for the present. | 13.2 and 13.4 |
| 98 The posts of Regional Lady Project Officers should be upgraded to that of higher grade Block Development Officers in the pay scale of Rs. 410—1,200 with a view to enabling them to have proper supervision over Block Development Officers' work and other district agencies for implementing the programme. | 13.4 |

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| 99 UNICEF may continue to provide financial assistance as hitherto before for the existing and proposed additional posts of Regional Lady Project Officers in view of proposed extension of the operational period of Applied Nutrition Programme Block to eight years. | 13.5 |
| 100 The Medical Officers should pay frequent visits to ANP villages for check-ups. | 13.6 |
| 101 The Sanitary Inspectors who are not being involved at present for the educational activities under ANP should be so involved. | 13.6 |
| 102 There is no case for appointing extra staff e. g. Extension Officer and Gram Sevika over and above the normal staff sanctioned under ANP and the other normal staff of the block involved in the Applied Nutrition Programme. | 13.7 |
| 103 Frequent transfers of key personnel viz. Block Development Officers and Mukhya Sevikas who have been trained in Applied Nutrition Programme should be avoided. | 13.8(1) |
| 104 The Planning Officer of Zilla Parishad should be held responsible for the successful implementation of the programme and try to achieve maximum co-ordination, exercise supervision and control over the staff. During his tours to Applied Nutrition Blocks, all the 10 villages should be visited by him and his report also sent to Government every month through the Chief Executive Officer of Zilla Parishad. He should visit at least one ANP Block every month. | 13.8(2) |
| 105 The concerned heads of departments of Zilla Parishads should visit the ANP Blocks and some programme villages once in every quarter and give suitable guidance wherever necessary. | 13.8(3) |
| 106 Full compliment of staff sanctioned for ANP in the block should be appointed. The posts of Mukhya Sevikas and Gram Sevikas should not be allowed to remain vacant for long duration. | 13.8(4) |
| 107 The Agricultural Subject Committee of the Zilla Parishads should take monthly review and Standing Committee should take a quarterly review of ANP so as to channelise the active co-operation of all the concerned departments in the programme. | 13.8(5) |

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- 108 The Rural Development Department should continue to conduct the quarterly Regional meetings to review the progress of expenditure and achievements in the blocks. The poor performance of the blocks should be brought to the notice of the Divisional Commissioners and the Chief Executive Officers. 13.8(6)
- 109 The importance of ANP should be stressed before the villagers at the time of Gram Sabha meetings which are statutory. If possible, Films and cultural programmes on ANP should be exhibited to impress upon the need of Applied Nutrition Programme. 13.8(7)
- 110 The office bearers of Zilla Parishads, Panchayat Samitis and Village Panchayats should pay sufficient attention towards this vital programme of national importance the success of which entirely depends on their active participation. 13.9
- 111 Administrative co-ordination at the State, District, Block and Village level is the key factor in effective programme implementation and it is necessary to have greater co-ordination at all levels from village to district level. 13.10
- 112 The Sarpanch, Mukhya Sevikas, School teachers and prominent members of Mahila Mandals, Youth Workers, etc. should form a Committee at village level and ensure greater co-ordination by reviewing the progress from time to time. 13.10
- 113 Monthly co-ordination meetings (separate from the monthly meetings of the Panchayat Samiti) at the block level need to be held in order to establish a liaison between the Block Development Officer and the Extension Officers concerned and ground level functionaries and also to involve actively the Mukhya Sevikas and Gram Sevikas in the programme to a considerable extent. 13.11
- 114 The meetings of the Co-ordination Committee set up at State Level for Applied Nutrition Programme should be held regularly as stipulated in the orders. 13.12
- 115 There is necessity for co-ordination of ANP at Divisional level which link is missing. In the Divisional Co-ordination meeting the ANP should be reviewed twice a year to ensure proper co-ordination at the Divisional level. 13.13
- 116 The Centres/Sub-Centres opened by the State Social Welfare Advisory Board under the Family and Child Welfare Scheme in the Blocks, should be rotated after 5 years to coincide with the ANP activities in ANP villages in the same block. This will not only expand the activity of the Board but will also help in boosting the Applied Nutrition Programme activities and benefit new villages with the Family and Child Welfare Activities. 14.4
- 117 The Applied Nutrition Programme is a "must" for the country in general and our State in particular and should continue. 15.1

APPENDIX A
(Para 1.1)

**(I) STATEMENT SHOWING THE APPLIED NUTRITION PROGRAMME BLOCKS
IN MAHARASHTRA STATE AS ON 1ST OCTOBER 1971.**

| Name of the Block | District | Remarks |
|------------------------------|---------------|--|
| <i>Blocks 1965-66 Series</i> | | |
| 1. Ambegaon | .. Pune | } Normal operational period expired on 31st March 1970 extended up to 31st March 1972. |
| 2. Shahuwadi | .. Kolhapur | |
| 3. Amravati | .. Amravati | |
| 4. Hingna | .. Nagpur | |
| 5. Brahmपुरi | .. Chandrapur | |
| 6. Parbhani | .. Parbhani | |
| 7. Bassein | .. Thana | |
| 8. Akot | .. Akola | |
| 9. Dhulia | .. Dhulia | |
| 10. Arvi | .. Wardha | |
| 11. Kudal | .. Ratnagiri | |
| 12. Jalna | .. Aurangabad | |
| <i>Blocks 1966-67 Series</i> | | |
| 13. Miraj | .. Sangli | } Normal operational period expired on 31st March 1971 extended up to 31st March 1972. |
| 14. Karad | .. Satara | |
| 15. Akola | .. Ahmednagar | |
| 16. Chalisgaon | .. Jalgaon | |
| 17. Nasik | .. Nasik | |
| 18. Nanded | .. Nanded | |
| 19. Udgir | .. Osmanabad | |
| 20. Buldana | .. Buldana | |
| <i>Blocks 1967-68 Series</i> | | |
| 21. Gondia | .. Bhandara | |
| 22. Ghatanji | .. Yeotmal | |
| 23. Soegaon | .. Aurangabad | |
| 24. Sangola | .. Sholapur | |
| 25. Shrivardhan | .. Kolaba | |
| 26. Palghar | .. Thana | |
| 27. Raver | .. Jalgaon | |
| 28. Baglan | .. Nasik | |
| 29. Guhagar | .. Ratnagiri | |
| 30. Panhala | .. Kolhapur | |
| 31. Ahmednagar | .. Ahmednagar | |
| 32. Nagpur | .. Nagpur | |
| 33. Murtizapur | .. Akola | |
| 34. Wardha | .. Wardha | |
| 35. Basmath | .. Parbhani | |
| 36. Hadgaon | .. Nanded | |
| <i>Blocks 1968-69 Series</i> | | |
| 37. Chikhaldia | .. Amravati | |
| 38. Pandharkawada | .. Yeotmal | |
| 39. Paoni | .. Bhandara | |
| 40. Sindewadhi | .. Chandrapur | |
| 41. Motala | .. Buldana | |
| 42. Manjlegaon | .. Bhir | |
| 43. Bhoom | .. Osmanabad | |
| 44. Karjat | .. Ahmednagar | |
| 45. Bhorl | .. Pune | |
| 46. Khatav | .. Satara | |
| 47. Karmala | .. Sholapur | |
| 48. Radhanagari | .. Kolhapur | |
| 49. Dahanu | .. Thana | |
| 50. Panvel | .. Kolaba | |

| Name of the Block | District | Remarks |
|-------------------|----------|---------|
|-------------------|----------|---------|

Blocks 1968-69 Series

| | | |
|----------------|---------------|--|
| 51. Nawapur | .. Dhulia | |
| 52. Tasgaon | .. Sangli | |
| 53. Khuldabad | .. Aurangabad | |
| 54. Sawantwadi | .. Ratnagiri | |
| 55. Pandharpur | .. Sholapur | |
| 56. Bhir | .. Bhir | |
| 57. Amgaon | .. Bhandara | |
| 58. Digras | .. Yeotmal | |
| 59. Washim | .. Akola | |

Blocks 1969-70 Series

| | | |
|------------------------------|---------------|--|
| 60. Mokhada | .. Thana | |
| 61. Mahad | .. Kolaba | |
| 62. Malegaon | .. Nasik | |
| 63. Taloda | .. Dhulia | |
| 64. Bhusawal | .. Jalgaon | |
| 65. Khed | .. Pune | |
| 66. Man | .. Satara | |
| 67. Shirala | .. Sangli | |
| 68. Barshitakali | .. Akola | |
| 69. Silod | .. Aurangabad | |
| 70. Jintur | .. Parbhani | |
| 71. Ashti | .. Bhir | |
| 72. Kinwat | .. Nanded | |
| 73. Ahmedpur | .. Osmanabad | |
| 74. Sindkhed-Raja | .. Buldana | |
| 75. Nandgaon- Khandeshwar | .. Amravati | |
| 75. Deoli | .. Wardha | |
| 77. Bhiwapur | .. Nagpur | |
| 78. Aheri | .. Chandrapur | |

Blocks 1970-71 Series

| | | |
|--------------|---------------|--|
| 79. Dindori | .. Nasik | |
| 80. Salekasa | .. Bhandara | |
| 81. Madha | .. Sholapur | |
| 82. Delgloor | .. Nanded | |
| 83. Yaval | .. Jalgaon | |
| 84. Sirur | .. Pune | |
| 85. Jamkhed | .. Ahmednagar | |
| 86. Patoda | .. Bhir | |
| 87. Mul | .. Chandrapur | |
| 88. Patur | .. Akola | |

(II) Position as on 1st October 1971

| Division | District | Name of A. N. P. Block | |
|-------------|------------|------------------------|-----------|
| 1 | 2 | 3 | |
| Bombay | Thana | *Bassein | (1965-66) |
| | | Palghar | (1967-68) |
| | | *Dahanu | (1968-69) |
| | | Mokhada | (1969-70) |
| | Kolaba | *Shriwardhan | (1967-68) |
| | | *Panvel | (1968-69) |
| | | *Mahad | (1969-70) |
| | Ratnagiri | *Kudal | (1965-66) |
| | | Guhagar | (1967-68) |
| | | *Sawantwadi | (1968-69) |
| | Nasik | *Nasik | (1966-67) |
| | | Baglan | (1967-68) |
| | | Malegaon | (1969-70) |
| | | Dindori | (1970-71) |
| | Dhulia | Dhulia | (1965-66) |
| Nawapur | | (1968-69) | |
| Taloda | | (1969-70) | |
| Jalgaon | Chaligaon | (1966-67) | |
| | *Raver | (1967-68) | |
| | *Bhusawal | (1969-70) | |
| | Yaval | (1970-71) | |
| Pune | Ahmednagar | Akola | (1966-67) |
| | | Ahmednagar | (1967-68) |
| | | Karjat | (1968-69) |
| | | Jamkhed | (1970-71) |
| | Satara | *Karad | (1966-67) |
| | | Khatav | (1968-69) |
| | | Man | (1969-70) |
| | Sangli | *Miraj | (1966-67) |
| | | *Tasgaon | (1968-69) |
| | | Shirala | (1969-70) |
| | Kolhapur | *Shahuwadi | (1965-66) |
| | | *Panhala | (1967-68) |
| | | Radhanagari | (1968-69) |
| | Sholapur | Sangola | (1967-68) |
| | | Karmala | (1968-69) |
| *Pandharpur | | (1968-69) | |
| Madha | | (1970-71) | |
| Pune | *Ambegaon | (1965-66) | |
| | *Bhor | (1968-69) | |
| | *Khed | (1969-70) | |
| | Sirur | (1970-71) | |

| Division 1 | District 2 | Name of A. N. P. Block 3 | Year 4 |
|---------------|---------------|-----------------------------|-----------|
| Nagpur | Nagpur | *Hingna | (1965-66) |
| | | *Nagpur | (1967-68) |
| | | *Bhiwapur | (1969-70) |
| | Amravati | *Amravati | (1965-66) |
| | | Chikhaldra | (1968-69) |
| | | Nandgaon | |
| | | Khandeshwar | (1969-70) |
| | Wardha | *Arvi | (1965-66) |
| | | Wardha | (1967-68) |
| | | Deoli | (1969-70) |
| | Yeotmal | Ghatanji | (1967-68) |
| | | Pandharkawada | (1968-69) |
| | | Digras | (1968-69) |
| | Chandrapur | *Brahmapuri | (1965-66) |
| | | *Sindewahi | (1968-69) |
| | | Aheri | (1969-70) |
| | | *Mul | (1970-71) |
| | Bhandara | *Gondia | (1967-68) |
| | | *Paoni | (1968-69) |
| | | *Amgaon | (1968-69) |
| | | Salekasa | (1970-71) |
| | Buldana | Buldana | (1966-67) |
| | | Motala | (1968-69) |
| Sinkheda-Raja | | (1969-70) | |
| Akola | Akot | (1965-66) | |
| | Murtizapur | (1967-68) | |
| | Washim | (1968-69) | |
| | Barshi-Takli | (1969-70) | |
| | Patur | (1970-71) | |
| Aurangabad | Aurangabad | *Jalna | (1965-66) |
| | | Soegaon | (1967-68) |
| | | *Khuldabad | (1968-69) |
| | | Silod | (1969-70) |
| | Parbhani | Parbhani | (1965-66) |
| | | Basmath | (1967-68) |
| | | Jintur | (1969-70) |
| | Nanded | *Nanded | (1966-67) |
| | | Hadgaon | (1967-68) |
| | | Kinwat | (1969-70) |
| | | Degloor | (1970-71) |
| | Osmanabad | *Udgir | (1966-67) |
| | | Bhoom | (1968-69) |
| | | *Ahmedpur | (1969-70) |
| | Bhir | Manjlegaon | (1968-69) |
| | | Bhir | (1968-69) |
| | | Ashti | (1969-70) |
| Patoda | | (1970-71) | |

Note.—The ANP Blocks visited by the Evaluation Committee are shown in asterisks.

APPENDIX B

(Para 2.2)

Statement showing the list of Districts, Blocks and Villages visited by the Evaluation Committee on Applied Nutrition Programme

| Serial No. | Name of Zilla Parishads visited | Name of Applied Nutrition Programme Block visited | Name of Applied Nutrition Programme villages visited | Name of Training and other Institution visited |
|------------|---------------------------------|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| 1 | Nagpur | 1. Hinga 2. Nagpur 3. Bhiwapur | 1. Raipur 1. Ashti 1. Korgaon. | Central Hatchery, Nagpur. |
| 2 | Nasik | 1. Nasik | 1. Dari 2. Makhmalabad 3. Chhedi | |
| 3 | Aurangabad | 1. Khuldabad 2. Jalna | 1. Galleborgaon 1. Gevrai | Gram Sevak Training Centre, Jalna and Seed Farm. |
| 4 | Amravati | 1. Amravati | 1. Masod. 2. Pimpal Vihar. | |
| 5 | Wardha | 1. Arvi | 1. Pimpal Khutte, 2. Kinhale. | |
| 6 | Pune | 1. Bhor 2. Khed 3. Ambegaon | 1. Narsapur 1. Chakur 1. Peth, | Gram Sevak Training Centre and Seed Farm, Manjri and Central Hatchery, Poona, All India Radio, Poona. |
| 7 | Satara | 1. Karad | 1. Rethre Khurd | |
| 8 | Kolhapur | 1. Panhala 2. Shahuwadi. | 1. Satave. 1. Amba. 2. Bhambarde. | |
| 9 | Ratnagiri | 1. Kudal 2. Sawantwadi. | 1. Pat Andurle. 1. Baolat Satoli 2. Amboli. | |
| 10 | Sangli | 1. Miraj 2. Tasgaon. | 1. Bedug. 2. Burangwadi. | |
| 11 | Thana | 1. Bassein 2. Dahanu. | 1. Waliv. 2. Pelhar. 1. Gholwad. | Gramsevak Training Centre and Seed Farm, Kosbad. |
| 12 | Kolaba | 1. Panvel 2. Mahad. 3. Shriwardhan | 1. Shirdhone. 2. Borgaon 1. Dandguri. 2. Bhoste. | Mahad Sahakari Shetkar Dugdh Utpadan Sangh, Mahad (Reg. Dairy). |
| 13 | Chandrapur | 1. Sindewahi 2. Mul. 3. Brahampuri. | 1. Palasgaon Jat. 1. Maroda. 1. Kurza. | Gram Sevak Training Centre, Sindewahi. |

| Serial No. | Name of Zilla Parishads visited | Name of Applied Nutrition Programme Block visited | Name of Applied Nutrition Programme villages visited | Name of Training and other Institution visited |
|------------|---------------------------------|---|---|--|
| 1 | 2 | 3 | 4 | 5 |
| 14 | Bhandara | .. 1. Pauni .. 2. Gondia. | .. 1. Bhuyar. 2. Nilaj. 3. Chargaon. 4. Kudva. 5. Pandharbodi | 1. Thana. |
| 15 | Nanded | .. 1. Nanded .. | .. 1. Lingaon. 2. Dhanora. 3. Pokharan. | |
| 16 | Osmanabad | .. 1. Ahmedpur .. 2. Udgir | 1. Shirur Tajband 2. Chapoli. 3. Chakur. | 1. Hundegulli. |
| 17 | Sholapur | .. 1. Pandharpur .. | 1. Babhulgaon. | |
| 18 | Jalgaon | .. 1. Bhuswal .. 2. Raver. | .. 1. Sunasgaon. 1. Nimbhora Bk. | |

APPENDIX " C "

(Para 2.5)

QUESTIONNAIRE

PART I

Questionnaire meant for State/Divisional/District/Taluka level authorities connected with the implementation of the Applied Nutrition Programme

A— Objectives (General and Specific)

1. How far has the objective of education and training in Applied Nutrition with a view to improving local diets in the selected villages been achieved ?
2. Is there adequate consumption of protective and energy producing foods by the vulnerable groups due to the introduction of A.N.P. ? If not, what alternative and remedial measures would you suggest ?
3. Has the production of nutritious foods by adoption of better methods of agriculture, Animal Husbandry and pisciculture increased as a result of A.N.P. ? If not, what suggestion do you offer ?
4. Is the participation of the people and voluntary organisations in the programme satisfactory ? Or is it lacking ? If lacking, what remedies can be resorted to ?
5. How far have the agency of Mahila Mandal and Youth Club succeeded in bringing about a gradual change in the dietary habits of the rural population ?
6. How the demonstrations of scientific and proper ways of cooking in obtaining the maximum nutrition from locally available food stuffs been successful ?
7. Have the villagers started adoption of balanced diet for different age and occupational groups of villages in their day-to-day life by preparing model and economic menus ?
8. How many feeding programmes for the selected vulnerable group in the selected villages have been arranged by the Village Panchayats and Mahila Mandals out of funds received ?
9. How far have the villagers in general and women in particular been educated about the evil effects of malnutrition ?
10. What is the impact of the programme on the people and how is their response to the different aspects of the programme ?
11. What is the extent of nutritional awareness created by the programme and the benefit accruing thereof to the people ? The class of people who have been benefited.
12. How far have the targets earmarked for training production and nutrition education been fulfilled ?
13. Whether expenditure incurred so far on different components is commensurate with the results achieved ?
14. Whether funds spent are adequate ?
15. Is assistance being availed of for the programme from Government Departments and voluntary institutions ? If not, what can be done in the matter ?

16. How far can the production components stand on their own after the project period when the initial assistance provided to them ceases ?

17. After the project period, are the concerned Co-ordinating Departments prepared to continue service to these units ?

18. Will the production aspects be continued by the Panchayat Raj institutions and the associate organisations of women and youth in the villages even after the project period ?

19. Whether proper technical guidance is made available from time to time for implementation of the programme ?

20. Do you consider that the vehicle and the various equipments supplied by the UNICEF are being usefully employed for promoting the Applied Nutrition Programme ? If not, how best they could be so employed to derive the maximum advantage as envisaged under the programme ?

21. What are the recommendations to secure more effective implementation of the programme ?

Various Components as per Plan of Operations

B—Horticulture

1. Have ten school and community gardens been established in the selected Blocks ?
2. Are irrigation facilities available in these gardens ?
3. Is the production of vegetables and fruits continuous and constant throughout the year ?
4. How the difficulties of securing land and providing irrigation facilities in some villages were overcome ?
5. In how many villages this difficulty still exists ?
6. How far has the primary purpose of education and extension through these gardens been achieved ?
7. In how many gardens improved varieties of fruit and vegetables of high nutritive value are being grown ?
8. Are better methods of cultivation practised and improved tools used in setting up and rearing these gardens ?
9. Are the school gardens tended and maintained by the school children under the supervision and guidance of a trained teacher ?
10. How far the members of youth club have associated themselves with the development and maintenance of school and/or community gardens ?
11. Is the requisite produce from these gardens being regularly supplied to the school children ?
12. How far have the school children and rural women folk become accustomed to the recommended types of food and to proper methods of its preparation and cooking ?
13. Has the Agriculture Department prescribed general basis of cropping pattern for the A. N. P. gardens ? How far has it been adopted and practised ?
14. Has timely supply of seeds and fertilisers been received ?
15. Has the A. N. P. Seed Farm attached to the Block pre-planned their requirements and adequately met the actual requirements of seeds and seedlings ?
16. Was the requisite type of seeds and seedlings supplied by the A. N. P. Seed Farms or not ? Do these Seed Farms fully meet the blocks seed requirements or not ?

17. Have school children and members of Mahila Mandals taken up kitchen gardening for producing fruit and vegetables ?
18. How many such gardens have been set up in the Block and have they been supplied with seeds, fertilisers, insecticides free of cost or not ?
19. Are the villagers responding well to the kitchen garden programme and is it popular or not ?
20. Have Community gardens been set up in the Block in all 10 selected villages with a suitable area upto 4 acres ?
21. Are they being established by the V. P. and cultivated by voluntary labour or hired labour ?
22. Do the Panchayats contribute 50 per cent of the produce for educational feeding programmes or not ?
23. Have these gardens become self-supporting and are in a position to continue production of vegetables, legumes, pulses, etc., after the project period ?
24. Are the garden tools supplied by UNICEF being regularly used and popular too ? If not, the reasons thereof.
25. What other garden tools are recommended for being supplied in lieu of or in addition to those already supplied by UNICEF ?
26. Is the expenditure on starting and maintaining the school and community gardens commensurate with the expenditure incurred and being incurred on them every year ? If not, what are the suggestions to make these units more effective and economically viable ?

C—Poultry

1. Has the revised poultry scheme for Tribal and Community Development Blocks been well received by the villagers and has become popular or not ?
2. If not, is there further scope for improving it ? Please give specific suggestions.
3. Are birds supplied by the nearest Central Hatchery healthy and in time too ?
4. Is there heavy mortality of birds immediately after supply or due to improper and inadequate feeding of birds ?
5. Have the poultry units thus set become self-sustaining and economically viable ? If not, give reasons and suggest improvement.
6. Is the prescribed quota of eggs being donated by the poultry beneficiaries for the educational feeding programmes or not ? If not, the reasons thereof.
7. Are there marketing facilities for sale of surplus eggs ?
8. Is the poultry mash being timely and regularly supplied by the Central Hatchery concerned ?
9. Are adequate medical facilities available to the birds and is the required medicine timely available in the Block ?
10. Does the extension officer (Animal Husbandry) devote sufficient attention to the poultry activity under A. N. P. ?
11. What are the facilities provided for hatching of eggs and continuing the poultry unit ?
12. Has the poultry equipment, like incubators, brooders, etc., supplied by UNICEF put to use by the Blocks ?
13. If not, what is the alternative equipment proposed to be supplied in lieu of the one supplied by the UNICEF ?

14. Are the villagers enthusiastic about the poultry development and do they display sufficient interest in running the activity ?
15. Suggestions, if any, for successfully running the poultry with profit.

D—Pisciculture

1. How far has the production of fish increased as a result of assistance provided to Fishermen's Co-operative Societies in Bassein and Brahmपुरi Blocks ?
2. Is the expected increased production being marketed and distributed in the rural areas of these Blocks ?
3. Has the full equipment like engines, nylon nets, etc., to be supplied by UNICEF for development of fishery been supplied or not ?
4. Is this equipment found useful or not ? If not, what alternative and additional equipment is required ?
5. What arrangements have been made for its maintenance and repairs ? Are spare parts easily available ?
6. Has the training given to selected fisher youths in improved methods of fishing and utilisation of catch, etc., been useful or not ? How far is it being put in practice ?
7. Is there any follow-up of this training ?
8. Have the selected Fishermen's Co-operative Societies provided free of charge the agreed proportion of the edible fish for the supplementary feeding in the A. N. P. villages ? If not, what steps are proposed to be taken for fulfilling this target ?
9. Has gradual expansion of fishery development programme (coastal and inland) been undertaken or not ?
10. Has the consumption of fish in the surrounding areas increased as a result of A. N. P ?
11. Have fish storage facilities been provided or not ?
12. If so, is it being fully utilised by the fishermen ?
13. Will consumption of fish by the villagers continue after the project period ?
14. Is the loan amount given to fishermen's co-operative societies being recovered with interest or not ? Is there any default on this account ?
15. Is the produce from these projects commensurate with the expenditure incurred ?
- *16. Will the construction of ice factory at the site of coastal Fishery Block be an asset to the A. N. P. ?
- *17. Will it be an economically able unit ?
- *18. Has the equipment supplied by UNICEF so far for ice factory been sufficiently useful ?
- *19. Is the capacity of ice and fish storage being fully utilised ?

Note.—*16 to *19 only meant for coastal Fishery Block.

E—Training

1. How far has the training and orientation of different categories of functionaries been effective ?
2. Has this trained personnel been assisting the villagers to develop a programme of increasing production of nutritionally valuable foods as well as improved food preparation by use of locally available foods of high nutritive value ?
3. Is the duration of training quite adequate for each category of trainee ? Should it be increased or decreased ?
4. Is it necessary to recast the training syllabi of various courses ?
5. Has there been concurrent and systematic follow-up of the training programmes ?
6. Is it necessary to organise seminars to secure support and encouragement to the programme at the ground level to cover large section of the population which cannot be given institutional training ? Do you consider that peripatetic training courses at village level would be useful ?
7. Is it necessary to develop radio support for the A. N. P. ?
- *8. How the continuous and consistent flow of information and material for A. N. P. broadcasts has been ensured ?
- *9. Is there extension and demonstration follow-up of these broadcasts ?
- *10. Is it necessary to evolve a particular methodology for A. N. broadcasts ?
- *11. Is there organised listening of A. N. broadcasts in the rural areas ?
- *12. Have women's listening clubs been organised in the selected Blocks ?
- *13. For assured listening of programmes have transistor sets been supplied to the listening groups ?
14. Has the production of educational and publicity material to support A. N. P. been properly planned and distributed ?

Note.—*8 to *13 wherever applicable.

PART II

Evaluation Schedule for Applied Nutrition Programme

QUESTIONNAIRE FOR VILLAGE

(To be filled by BDO)

- Date of Visit : _____
- Name of Investigator : _____
1. Village : _____
2. Block : _____
- Distance (Km.) _____
3. District : _____
4. Distance (Km.) : _____
5. Population—
- | Adult | | Children | Total |
|-------|--------|----------|-------|
| Male | Female | | |
| _____ | _____ | _____ | _____ |
6. Communication—
- Is it connected by road to Block Head-quarter ? _____
- District : _____
- Primary Health Centre : _____
7. Nearest Market : _____
- Distance : _____
8. Main occupation of the Villagers : _____
- Others : _____
9. Institutions in the village—
- | | Students on Roll | Average daily attendance |
|----------------------------|------------------|--------------------------|
| (a) Primary School : | _____ | _____ |
| (b) Secondary School : | _____ | _____ |
| (c) Gram Panchayat : | _____ | _____ |
| (d) Mahila Mandal : | _____ | _____ |
| (e) Yuvak Mandal : | _____ | _____ |
| (f) Co-operative Society : | _____ | _____ |
| (g) Dispensary : | _____ | _____ |
| (h) Others (Specify) : | _____ | _____ |
10. Date from which the ANP started : _____
11. Production Programme—
- 11.1.1. Horticulture—
- No. of Kitchen gardens established : _____
- 11.1.1.1. Vegetable grown varieties : _____
- 11.1.1.2. Fruits grown varieties : _____
- Allopathic/Ayurvedic/P. H.C./S.C
/Veterinary.

11.1.2. School Gardens—

Area of the Garden (in Hectares) :

11.1.2.1. Implements used : UNICEF :

11.1.2.2. Particulars of the inputs used for development of school gardens—

| Item | Source |
|---|--|
| (1) Seed | UNICEF/Others |
| (2) Fertilizers : Whether used or not | |
| (3) Insecticides | Used or not |
| (4) Source of water-supply for gardens— | |
| Well : | Others : |
| Is it all the year round supply ? | |
| If not how long it lasts ? | |
| (5) Wherefrom technical guidance is received ? | |
| (6) Production in last two years— | |
| G.L.V. | Quantity |
| Fruits : | |
| Vegetables : | |
| Others : | |
| (A) Are they any trained personnel to manage ? | |
| (B) Are there arrangements for preservation of vegetable and other produce ? Yes/No. | |
| (C) If yes, please specify in detail the arrangements existing. | |
| (D) Are there trained persons to look after the job ? State difficulties if any and suggest remedies to overcome them ? | |
| 11.2.1. Community Garden | |
| 11.2.1.1. Area (in hectares) : | Land : Donated/Acquired: |
| 11.2.1.2. Fencing type : | |
| 11.2.1.3. Well : Provided or not/other source. Whether water supply is all the year round : | |
| 11.2.1.4. Pump—Electric/Oil : | |
| 11.2.1.5. Repairs facilities in case of breakdown of the pump. | Where : Distance. |
| 11.2.1.6. Management of the Gardens : | Gram Panchayat/Co-operative Society/Youth Clubs etc. |

11.2.1.7. Crops taken out in the last two years

1st Year

2nd Year

G.L.V. (Kg)

Legumes

Fruits :

Others :

11.2.1.8. Quantity of produce supplied for Demonstration Feeding Programme :

11.2.1.9. Does the garden give returns commensurate with the expenditure ?

If not, how the deficit is met ?

11.2.1.10. Who gives technical guidance ?

How often ?

11.2.1.11. Have new practices of cultivation been adopted ? If yes specify (where applicable).

11.3.1. Poultry Programme—

11.3.1.1. Individual poultry breeders : No. of Birds :

Desi/Improved variety :

11.3.1.2. Poultry keepers on community basis of village panchayat :

No. of Birds :

Desi/Improved variety :

11.3.1.3. No. of total birds before introduction of ANP/After ANP :

11.3.1.4. Type of system adopted by poultry breeders (Numbers)—

11.3.1.4.1. Deep Litter :

11.3.1.4.2. Semi free range :

11.3.1.4.3. Free range :

11.3.1.4.4. Type of poultry house used—

11.3.1.4.5. Approved type :

Others (Specify) :

11.3.5. Are modern equipments used for feeding and watering ?

11.3.6. Whether UNICEF equipment like incubators, brooders etc. put to use ?

11.3.7. Have the poultry keepers been trained in that technique :

11.3.8. Sources of obtaining birds—

- 11.3.8.1. From Central Hatchery :
- 11.3.8.2. From other sources (specify) :
- 11.3.9. Is the prescribed type of mash given for feed ?
- 11.3.9.1. If not, what type of feed is given (details) :
- 11.3.10. Supervision and guidance :—
- 11.3.10.1. Available from E.O.A.H. (Block) (How often).
- 11.3.10.2. Available from D. A. H. O. (How often):
- 11.3.11. Disposal of Eggs—
- 11.3.11.1. No. of the eggs obtained per month :
- 11.3.11.2. No. of the eggs given free for feeding Programme :
- 11.3.11.3. No. of eggs consumed in village :
- 11.3.11.4. No. of eggs sold and amount realised :
- 11.3.11.5. Nearest market for sale of eggs :
- 11.3.12. Is the poultry keeper economically helped through this programme :
- 11.3.12.1. If not what is amount of loss :
- 11.3.12.2. What was the amount of mortality in the birds :
- 11.3.12.3. What were the different causes :
- 11.3.12.4. How early it was reported to the BDO or his subordinates :
- 11.3.12.5. How early the report was attended to :
- (i) Whether Government loan was taken for the poultry Programme. State the amount.
- (ii) Is it being repaid regularly ?
- (iii) If not the reasons therefor :

12. (A) Pisciculture (where applicable)

Inland fisheries.—

- 12.1. How many tanks are available in ANP villages ?
- 12.2. How many utilised for fish culture ?
- 12.3. What variety of fish is grown ?
- 12.4. Is there fishermen Co-operative Society ?
- 12.5. Who gives technical guidance ?
- 12.6. How often it is received ?
- 12.7. What is the catch in the last two years ?

- 12.8. What quantum was given for free Demonstration Feeding Programme ?
- 12.9. What quantity was sold ?
- 12.10. Was there any economic gain ?
- 12.11. (b) Marine fisheries
- 12.11.1. Who conducts the Programme ?
- Co-op. Society
- Department :
- 12.11.2. What is the average quantity of yearly catch ?
- 12.11.3. How much was given for feeding programme (during the year in Kgs) ?
- 12.11.4. How is the surplus disposed of :
- 12.11.5. Percentage preserved/sold
- State difficulties if any and suggest remedies to the Committee.
- 12.12. How far is the nearest market :
- 12.13. Is the fisherman in economic gain ?

Feeding Programme—

- 13.1. Is the demonstration feeding programme carried out in the village :
- 13.1.1. How often in a week : and for how many weeks during the year ?
- 13.1.2. Who conducts the Programme ?
- 13.1.2.1. Gram Panchayat :
- 13.1.2.2. Mahila Mandal
- 13.1.2.3. Other agency (specify)
- 13.2. Where the feeding programme is conducted ?
- 13.2.1. Is the community kitchen specially constructed ?
- 13.2.2. Other places (specify)
- 13.2.3. Have utensils and other equipments been supplied and put to use regularly ?
- 13.3. Who prepares the recipe menu ?
- 13.3.1. Lady primary school teacher
- 13.3.2. Gramsevika/Mukhya Sevika
- 13.3.3. Members of Mahila Mandal
- 13.3.4. Combined (all above)

13.4. Is there potable water available all time for feeding programme ?

13.4.1. If not what other arrangements made ? ..

13.5. Who supplied ingredients for feeding Programme and the amount spent on each supply ?

| Items | School garden | Community garden | Poultry keepers | Fish Breeders | G. Ps. | Care, Others, INO |
|---------------------------|---------------|------------------|-----------------|---------------|--------|-------------------|
| Eggs .. | | | | | | |
| Green leafy veg., fruits. | | | | | | |
| Root veg. | | | | | | |
| Grains, Cereals & pulses. | | | | | | |
| Legumes .. | | | | | | |
| Fish .. | | | | | | |
| Milk and Milk Powder | | | | | | |
| Fuel .. | | | | | | |
| Condiments | | | | | | |
| Cleaning of utensils. | | | | | | |

13.6. Who takes the advantage of feeding programme (Beneficiaries) ?

| | Category | Attendance No. | Daily average attendance |
|---|-----------------------|----------------|--------------------------|
| 13.6.1. Category | .. | | |
| | Infants | .. | |
| | Pre-school children | .. | |
| | School going children | .. | |
| | Pregnant women | .. | |
| | Nursing mothers | .. | |
| 13.6.2. How are the beneficiaries selected ? | .. | | |
| 13.6.2.1. After due medical Examination. | .. | | |
| 13.6.2.2. At random | .. | | |
| | By whom : | .. | |
| 13.6.3. How the people look to this feeding aspect of the programme ? | | | |
| 13.6.3.1. As a charity programme . | .. | | |
| 13.6.3.2. As an educative programme | .. | | |
| 13.6.3.3. As a supplementary feeding programme : | | | |

14. *Nutrition Education and Training*—

14.1. Is the School teacher trained in ANP ?

14.2. How many of the following categories have received ANP training ?

(a) Mukhya Sevika ..

(b) Gramsevak ..

(c) Gramsevika ..

(d) Sarpanch of Gram Panchayat ..

(e) Members of Gram Panchayat ..

(f) Secretary of the Gram Panchayat ..

(g) Members of Mahila Mandals ..

(h) Poultry keepers ..

(i) Fisherman ..

(k) School teachers ..

(l) Youth club members ..

Total No. No. of trained.

14.3. Out of the various categories trained how many categorywise are taking active part in the implementation of ANP ?

14.4. Has there been noticed any change in the habits of those already trained ?

14.5. What other extension methods are adopted in order to advance the knowledge of nutrition by those who are already trained ?

14.6. What is the general reaction of the villagers towards the programme ?

15. *General*—

15.1. Attitude of the villagers towards ANP favourable/and appethetic, if so why ?

15.2. What are the chances of programme (wherever has been started) being continued by the villagers out of their own resources once the Government aid is withdrawn ?

15.3. Has the dietary survey been conducted with the aid of the Nutrition Section ?

15.4. Has the extent and quality of malnutrition defined through Nutritional assessment by Health Department Staff ?

15.5. Is there any change (However slight) being noticed in the health status and hygiene habits of the people after the implementation of the programme ?

15.6. Has the programme introduced any change in the dietary habits of the people after the implementation of the programme ?

- 15.7. Have any non-ANP villages approached the BDO for starting this programme on voluntary basis ?
- 15.8. Out of the officials trained in ANP how many are on that job at present ?
- 15.9. How many transferred to other ANP Blocks ?
- 15.10. How many came on transfer already trained in ANP from other Blocks ?
- 15.11. Was the selection of the village as per criteria laid down for selection of villages ?
If not, how much it has deviated from the criteria ?
- 15.12. What is the extent of supervision by the institution i/c of supervision ?
- 15.13. Has any problem been referred for research ?
If so, when ?
- 15.13.1. If yes, what is the problem ? (any field of ANP)
- 15.13.2. Has the result of research been received and communicated to the villagers and Government ? If so, how and when ?
- 15.14. Have all the villages selected from beginning of the programme continued or any one of these had to be changed ?
- 15.14.1. If change was necessary reasons for the change for each village.
- 15.15. Is the follow-up of the programme being done at regular intervals ?
- (a) With reference to the trained personnel :
- (b) With reference to the beneficiaries by keeping charts about their health statistics viz. height, weight, measurements etc. :



PART III
FAMILY QUESTIONNAIRE

(To be filled in by the BDO or Mukhya Sewika)

Date of visit :

Name of BDO/Mukhya Sewika :

1. Village Block Taluka District

2. Name of the Head of the family :

3. Occupation :

4. Number of members in the family :

| Name | Age | Sex | Education | Relation to Head of Family | Occupation | Monthly income | Remarks |
|------|-----|-----|-----------|----------------------------|------------|----------------|---------|
|------|-----|-----|-----------|----------------------------|------------|----------------|---------|

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

5.1. Have you heard about ANP, its aims and objectives ?

5.2. Dietary Habits—Vegetarian/Non-Vegetarian/Egg eaters.

6. Have you any poultry birds ?

Total Desi Improved variety

6.1. How do you house the poultry ?—Deep litter/Free range/Semi free range/any other methods.

6.2. What feed do you give ?—Mash purchased/grains from house and whatever available.

6.3. Have you started poultry keeping after ANP was introduced in the village ?

6.4. How many eggs do you get per week ?

6.4.1. How many are consumed at home ?

How many are given per week to feeding programme ?

6.4.2. How many are sold ?

Price of eggs (per doz.)

6.4.3. How much do you gain per week from poultry ?

6.4.4. Which is the market where you sell your eggs ?

Distance

How often ?

- 11.1.1. If not have you any objection and why?
- 11.2. Do you help in the feeding programme?
- 11.2.1. Does any of your family members help in the feeding programme?
- 11.3. In what way do you help in the feeding programme?
- 11.3.1. By donating in cash?
- 11.3.2. By giving grains etc.
- 11.3.3. In any other way (specify) :
- 11.3.4. By taking part in cooking?
- 11.4.1 Do you think that it is a charity feeding
- 11.4.2. Do you think it as an educational feeding programme?
- 11.4.3. Do you think it is doing good to the beneficiaries?
- 11.4.4. If not what do you think should be done to improve this feeding programme?
- 11.5.1. Have you at any time visited the community kitchen where the feeding programme was in progress?
- 11.5.2. What is your opinion about it?
- 11.6.1. Has any member of your family taken part in the feeding programme ? If so, has he/she shown any keenness to include any of those items demonstrated there in the household meals?
- 11.6.2. Has any change in the cooking practices been brought about by your family members after having attended the feeding programme ? If not what are the difficulties ?
- 12. Training—
- 12.1. Have you received any training in ANP/Poultry/Pisciculture?
- 12.1.1 Has any other member of your family received any training?
- 12.1.2. If yes, how do you utilise the training ?
- 12.2. Have your neighbours followed you in your eating habits?
- 12.2.1 Has anyone contacted you and talked to you on ANP?
- 12.2.2. How many of you have attended the ANP shibir?
- 12.2.3. How many of you have seen the film on ANP?
- 12.3. How do you preserve your vegetables and fruits ? (Drying/Salting/Pickling/Jams/ any other method) (specify).
- 12.4. How do you cook your food ? (Boiling/frying/Roasting/steaming/Baking/Other (specify).
- 12.5. What improved methods of cooking you have adopted after the programme was implemented in your area ?

General Difficulties

- 13. If any in implementing dietary changes necessary for balanced diet and suggestions if any,

PART IV

EVALUATION QUESTIONNAIRE FOR APPLIED NUTRITION PROGRAMME
TRAINED EXTENSION WORKERS

(Mainly meant for ground level functionaries viz Sarpanch, Upsarpanch, Primary Teacher, Gramsevak/Gramsevika, Assistant Gramsevak/Gramsevika)

(The Items covered by reply should be tick marked)

1. Name of worker : _____ Age _____ Years _____
Education : No/Primary/High School/College/Professional _____
Occupation : Service/Agriculture/other _____
2. Place of residence : _____ Village _____ Taluka _____ District _____
3. From what level are you doing the work of the Applied Nutrition Programme ?
Youth Club Member/Mahila Mandal
Member/Member of Gram Panchayat/
Upsarpanch/Sarpanch/Primary Teacher
Gramsevak / Gram-sevika / Extension
Officer.
4. Are you trained in Applied Nutrition ? Yes/No.
If so, when and in which institution ? Give name of Institution.
5. Since when the Applied Nutrition Programme has started in your village ?
6. Which work do you like out of production and distribution under the ANP ?
Production/Distribution.
7. Which Extension Method you follow while imparting knowledge of ANP to the people ?
(a) Personal contact.
(b) Group discussion.
(c) Meetings.
(d) Seminar.
(e) Exhibitions.
(f) Demonstrations.
(g) Shibir.
(h) Other methods.
(e.g. entertainment programmes
Bhajans, filmshows etc.)
8. When and how much time you spend for ANP work ? Indicate hours per day.
..... days in a week etc.
9. Which components under ANP are taken up in your village ?
Community garden/school garden/kitchen
garden/demonstration feeding centre/
ANP distribution centre/Poultry/Pisci-
culture.
10. What efforts do you put in to make the school and community garden self-supporting ?
10. (a) In which programme (referred to above) do you take part ? In what manner ? (e.g. propaganda, work by calling the people, by actual participation, by obtaining the equipment materials etc.)

(b) Which programme people like most ?

(c) Whether it is necessary to modify the programme ?

11. Village (Community) Garden/School Garden/Kitchen Garden—

- (a) Which plants you are cultivating ?
- (1) Drumstick (Shevaga).
 - (2) Hadga (Agastha).
 - (3) Suran.
 - (4) Papayya.
 - (5) Guava.
 - (6) Chiku
 - (7) Mango.
 - (8) Green leafy vegetables (write the names)
 - (9) Creeper vegetables (write the names).
 - (10) Root vegetables (write the names).
 - (11) Beans and pulses (write the names).
 - (12) Other vegetables and fruits (write the names).

(b) From which place do you obtain seeds, seedlings and grafts for your garden ?

(c) Which demonstrations have you taken in your garden ?

- (1) Plantation
- (2) Application of fertilisers.
- (3) Spray of medicines,
- (4) Demonstration of crops,
- (5) Other (write the names),

(d) For whom these demonstrations were organised ? (e.g. Mahilas, students, farmers etc.).

(e) How many persons participated in these demonstrations ?

(For Mahila Mandal Workers)

(f) Whether one-day ANP Shibirs were organised in your village ? If so when ? How many participated in it ? In what way it was advantageous in the context of ANP ?

Yes/No,

(g) Whether the local institutions/Mahila and youth Mandals are participating actively in the Production and Demonstration Programmes under the ANP ?

Yes/No,

(h) If not, what remedial measures should be undertaken ?

(i) Whether any change in dietary habits is noticed at village level due to demonstrations under A.N.P. ? If so, give percentage of families in which this change is noticed. Yes/No.

(j) Give in short your suggestions for maintaining enthusiasm and co-operation in the rural area for this scheme.

(m) For what section of the community you held these demonstrations ?

12. *Poultry/Pisciculture—*

Wherefrom do you get guidance from time to time in this behalf ?

12. (a) What is your opinion about success or otherwise of Poultry Programme ?

(b) What is your opinion about revised Poultry Scheme under A.N.P. ?

13. *Applied Nutrition Programme Demonstration Centre—*

(a) Wherefrom do you secure material (vegetables eggs etc.) for demonstrations ?

(b) Who incurs the expenditure on account of oil, fuel etc. required for demonstrations ?

(c) During last 3 months how many and which practical demonstrations were organised ?

(d) Which educational methods were practised for the same ?

- (1) Wall posters.
- (2) Charts.
- (3) Blackboard and chalk.
- (4) Flannel graphs.
- (5) Flash cards.
- (6) Circulars.
- (7) Booklets,
- (8) News-boards,
- (9) Discussions.
- (10) Seminars,
- (11) Film shows,
- (12) Other?

14. *A. N. P. Demonstration centre (feeding Programme)—*

(a) For how many days in a week this centre works in your village ?

(b) How many children are benefited ?

(c) How many pregnant and nursing mothers are benefited ?

(d) Which items are served by the Centre ?

15. For effective implementation of A.N.P. some methods have been suggested. Give priority to them as per your requirement and requirements of the scheme.

(Please indicate the number of the method in the square.)

(a) More number of persons should be trained.

(b) Sufficient availability of seeds, equipment, material etc.

(c) In relation to my work, supply of latest literature on the subject should be ensured for proper guidance.

(d) Occasional Shibirs for trained personnel and field workers are necessary.

(e) Other suggestions, if any ..

16. Do you feel that the training given to you is adequate? If not, what should be the duration of training. Yes/No.

17. Out of the subjects taught to you, on what subject you feel that more information should be given to the trainees?

18. Indicate the manner in which you derive at your home the benefit you got due to A.N.P. training.

19. Do you find that the health of children/women has improved due to Demonstration Feeding Programme under A.N.P.?

* * *

APPENDIX D

(Para 4.3)

(I) Statement showing the progress of training under Applied Nutrition Programme since inception upto 31st-March 1971

(Compiled on the basis of the reports from Training Centres and the Director of Fisheries Maharashtra, Bombay).

| Serial No. | Name of the Training Centre. | Block Development Officers | Extension Officers. | Gram Sevaks | Primary School Teachers | Youth Club Members | Sarpanchas and Member of Panchayat Samitis. | Total |
|--------------|--------------------------------------|----------------------------|--------------------------|-------------|-------------------------|--------------------|---|-------|
| 1 | Gramsevak Training Centre, Manjri | .. 9 | 91 | 125 | 183 | 700 | .... | 1,108 |
| 2 | Gramsevak Training Centre, Kosbad | .. 3 | 58 | 83 | 169 | 797 | 60 | 1,170 |
| 3 | Gramsevak Training Centre, Jalna | .. 2 | 86 | 115 | 140 | 364 | 38 | 745 |
| 4 | Gramsevak Training Centre, Kolhapur | .. 4 | 52 | 81 | 129 | 396 | 70 | 732 |
| 5 | Gramsevak Training Centre, Amravati | .. 6 | 79 | 120 | 116 | 363 | 99 | 785 |
| 6 | Gramsevak Training Centre, Sindewahi | .. | Information not received | | | | | |
| 7 | Gramsevak Training Centre, Buldana | .. 2 | 54 | 67 | 100 | 209 | 30 | 462 |
| 8 | Gramsevak Training Centre, Parbhani | .. 6 | 54 | 101 | 127 | 431 | 36 | 755 |
| 9 | Gramsevak Training Centre, Gargoti | .. .... | 54 | 72 | 76 | 289 | 38 | 529 |
| 10 | Public Health Institute, Nagpur | .. 73 | .... | .... | .... | .... | .... | 73 |
| Total | | .. 105 | 528 | 764 | 1,040 | 3,551 | 371 | 6,359 |

| | Mukhya Sevika | Gram Sevika | Primary School Teachers | Mahila Mandal Members |
|---|--|---------------------------|-------------------------|---|
| (II) | | | | |
| A. Gramsevika Training Centre, Manjri .. | 35 | 146 | 142 | 1,159 |
| B. Gramsevika Training Centre, Sindewahi | | Information not received. | | |
| C. Gram Bal Shiksha Kendra, Kosbad .. | .. | .. | .. | 226 |
| | | | | No. of Poultry keepers trained. |
| (III) | | | | |
| A. Central Hatchery, Aurangabad .. | .. | .. | .. | 867 |
| B. Central Hatchery, Kirkee, (Pune) .. | .. | .. | .. | 438 |
| C. Central Hatchery, Kolhapur .. | .. | .. | .. | 627 |
| D. Central Hatchery, Nagpur .. | .. | .. | .. | 1,096 |
| | | | Total .. | 3,028 |
| (IV) | | | | |
| 1. Fisheries Training Centre, Bassein, District Thana | .. | .. | .. | 53 |
| 2. Fisheries Training Centre, District Kolaba | .. | .. | .. | 11 |
| 3. Fisher Youths trained under Applied Nutrition Programme at Nagpur and Brahmपुर, district Chandrapur. | .. | .. | .. | 25 |
| 4. Fisher Youths trained under Applied Nutrition Programme at Guhagar, district Ratnagiri. | .. | .. | .. | 23 |
| | | | Total .. | 112 |
| (V) Progress of training since inception of Applied Nutrition Programme training upto 31st March 1971 at the Public Health Institute, Nagpur | | | | |
| Serial No. | Category of functionaries | | | No. of persons trained since inception of training upto 31st March 1971 |
| 1 | Instructors from Gramsevak Training Centre other than Public Health | | | 29 |
| 2 | Instructors of Non-Gram Sevak Training Centres and their Principals.. | | | 32 |
| 3 | District Level Officers | | | 193 |
| 4 | Deputy Commissioners (Development) | | | 3 |
| 5 | Presidents, Chief Executive Officers of Zilla Parishads and Chairman of Panchayat Samitis | | | 139 |
| 6 | Principals of Training Institutes Development Officers (Horticulture) and Regional Lady Project Officers | | | 17 |
| 7 | Auxiliary Nurse Midwives and Nurse Midwives and Sanitary Inspectors | | | 428 |
| 8 | Medical Officers in-charge Primary Health Centres, and Lady Health Visitors | | | 95 |
| 9 | Public Health Nurses | | | 18 |
| 10 | Instructors in Agriculture in Teachers Training Centres for Primary School Teachers | | | 15 |
| 11 | *Block Development Officers | | | |
| | | | Grand Total .. | 969 |

*Note—The number of Block Development Officers trained in Public Health Institute Nagpur has already been shown in Statement (I) of this Appendix.

APPENDIX E

(Para 4.20 and 14.2)

Programme Achievement

PROGRESS OF ANP SINCE INCEPTION TILL MARCH 1971

(Compiled by Bureau of Econ. and Statistics, Maharashtra, Bombay on the basis of the reports received from A.N.P. Blocks).

ITEMS

| | | | |
|--|--|-------|--|
| I. Coverage | | | |
| 1. | No. of blocks allotted | .. .. | 88 |
| 2. | No. of blocks taken up | .. .. | 88 |
| 3. | No. of villages taken up (approximately) | .. .. | 880 |
| II. Horticulture | | | |
| 1. | School/Community gardens taken up (No.) | .. .. | 1,312 |
| 2. | Area covered under school gardens | .. .. | 1,160 hectares |
| 3. | Kitchen gardens taken up (No.) | .. .. | 35,956 (Some of these gardens are seasonal) |
| III. Poultry | | | |
| | Poultry village units taken up | .. .. | 1,968 |
| IV. Pisciculture | | | |
| 1. | Fishery blocks units set up (one inland and 3 coastal) | .. .. | 4 |
| 2. | Fingerlings supplied (for inland) | .. .. | 1,358 (in thousands) |
| V. Feeding Programme | | | |
| 1. | Pre-school/School children fed (child-days in lakhs) | .. .. | 20.14 |
| 2. | Expectant/Nursing mothers fed (women-days in lakhs) | .. .. | 10.1 |
| 3. | Vegetables supplied (kg.) | .. .. | 81,000 |
| 4. | Eggs supplied | .. .. | 4.11 lakhs |
| 5. | Fish supplied (kg.) | .. .. | 67,000 |
| VI. Youth and Women's Programme | | | |
| 1. | Mahila Mandals associated (No.) | .. .. | 780 |
| 2. | Membership in Mahila Mandals | .. .. | 19,498 |
| 3. | Youth Clubs associated (No.) | .. .. | 701 |
| 4. | Membership in Youth Clubs | .. .. | 14,020 |

APPENDIX F

(Para 11.5)

Extract from the report on food consumption survey carried out by the Public Health Institute, Nagpur, in August and September 1971

At the request of the Under Secretary, Rural Development Department the following five blocks (out of 7 blocks whose survey data was available) were selected for the food consumption surveys with a view to find out the impact of the Applied Nutrition Programme. In each block 10 families (out of 25 families surveyed earlier) were taken for the survey.

| Block | Name of the village | Date of the survey | No. of families |
|----------|---------------------|--|-----------------|
| Gondia | .. Chargaon | .. 20th August 1971 to 21st August 1971. | 10 |
| Amravati | .. Wadgaon | .. 26th August 1971 to 27th August 1971. | 10 |
| Ghatanji | .. Inzala | .. 28th August 1971 to 29th August 1971. | 10 |
| Bassein | .. Nala | .. 10th September 1971 | .. 10 |
| Ambegaon | .. Avsarikhurd | .. 13th September 1971 | .. 10 |

Selection of families.—Household list of the village was obtained and serial numbers were given. After giving the serial numbers 25-30 random numbers were picked up from the Random Number Table. The families whose serial numbers correspond to these selected random numbers were covered for the food consumption surveys.

Method.—Various methods have been designed from time to time for the collection of the dietary data. The criteria used for the selection of the method depends on the nature of the informations, and on the facilities and funds available keeping in mind the above criteria, for the study a combination of two methods 24 hour weightment of food and frequency method was used. The foods eaten during the 24 hours period are weighed before cooking of each meal and later the subjects are interviewed on the usual intake of foods in terms of frequency with which various food items are taken.

This method was found very simple and economical, not very sharp, but adequate for planning and evaluating education programmes.

The limiting factor in the use of this method is that it needs trained personnel. The accuracy of the data will depend on the investigators judgment, knowledge of the subjects, mother-tongue, and intelligence in asking questions.

The interpreting the findings due assessment should be taken of seasonal variations, this may also be a limiting factor in the use of this method, where marked seasonal changes occur.

For collecting the dietary data, a special schedule was prepared which included the study of dietary habits, culinary practices, seasonal variations, occupations, agricultural produce etc.

Collection of food consumption data

First survey.—The data for the first survey was collected by the Mukhya Sevika and the Gramsevika of their respective block/village. The nutritionists, in the Department of Nutrition, visited each village for two days, initiated the work and trained the personnel in the technique of food consumption surveys.

Second survey.—The data for the second survey was collected by one of the Nutritionists in the Nutrition Section (for first four villages only). The data for the fifth village Avsari khurd (Ambegaon Block) is collected by the Medical Officer of the Nutrition Section.

As mentioned above, each family was visited twice i.e. in the morning before cooking and in the evening before dinner is ready. The raw food-stuffs were weighed to the nearest 5 gm. While collecting the data care was taken to note down the name, age, sex of absentees and/or guests (if any) in each meal. The food taken by the guests was recorded. Information was also collected on the special foods received by the children, goods given to the pets, and the foods left over on the previous day, were also noted down.

Observations during the calculation of Nutritive value

While calculating the nutritive values of the diet, deductions on account of foods given to guests, or pets, were made in the total food intake.

No allowance for wastage was made because no food wastage was observed in these families. Just sufficient food was prepared and left over, if any, were consumed at the subsequent meal.

* * *

Chargaon (Gondia Block, District Bhandara)

* * *

The nutrient analysis of food intake showed that the protein intake was decreased from 94 gm. per C.U.P.D. to 76 gm. per C.U. per day. The consumption of Vitamins and Minerals were also decreased in the second survey period. The caloric value per C.U. per day had also been decreased from 3619 (First Survey) to 2949 (Second Survey).

* * *

Wadgaon (Amravati Block, District Amravati) Nutrient Analysis.—The average diet of each selected family is analysed for the proximate principles minerals and vitamins. The second survey values are compared with first survey value (*vide* Appendix F).

The protein intake remains more or less the same. The fats and carbohydrate intakes are slightly increased in the second survey. The calcium intake is 567 gm. in the first survey and 586 gm. in the second survey period which appears to be fairly satisfactory. The intake of Vitamins such as Vitamin 'A' and 'C' are slightly reduced in the second survey. The caloric intake increased from 2,900 to 3,100 in the second survey period. The percentage distribution of calories from fats is increased from 9 per cent in the first survey to 12 per cent in the second survey. Thus there seems to be an overall improvement in the averages.

Inzala (Ghatanji Block, District Yeotmal) Nutrient Analysis.—The Nutrient Analysis of their diets is also studied [*vide* Appendix F(I)]. There is no appreciable change in the intakes from the first survey period to the second survey period except in the case of the minerals and vitamins. This may be due to higher intake of leafy vegetables, fruits, groundnuts and cereals. The Vitamin 'A' intake is 4865 I.U. as against 1473 I.U. for the first survey period. Average caloric value is about 3,000 calories which is the same in the first survey period. Percentage distribution of calories from fats has been reduced to 9 per cent in the second survey period.

Nala (Bassein Block, District Thana)

Nutrient Analysis

Protein.—The intake varied from 88 gm. to 51 gm. per C. U. per day in the present survey, the average being 69 gm. per C. U. per day which is higher than the first survey.

Fats.—In the second survey the highest amount of fats consumed is 69 gm. and the lowest is 15 gm. per C. U. per day with an average of 46 gm. per C. U. per day, yielding about 17 p.c. of the total calories. As compared to the first survey the intake of oils and fats has been increased by 7 gm. which is a good index of a community's economic status because these foods are costlier and poor people can ill-afford them.

Carbohydrates.—In the second survey the amount of carbohydrates derived mostly from starchy grains and sugars varied from 649 gm. per C. U. per day to 351 gm. per C. U. per day with an average 434 gm. per C. U. per day. Nearly 70 per cent of the calories are derived. As compared to the first survey period the intake of carbohydrate has been increased by 100 gm. This is due to higher intake of cereals during the second survey.

Vitamins and Minerals.—The intake of Vitamins A and C has been reduced considerably as compared to the first survey findings. This is due to the low intake of leafy vegetables. It was reported that these vegetables are generally consumed in large quantities during summer and very little in rainy season. The first survey was conducted in summer and the second survey in the monsoon.

This may be an explanation for the low consumption of leafy vegetables. It is established that the period of survey have an effect on the intake of foods.

As the bulk of diet consists of cereals, the Vitamin B-1 is adequately supplied. The average yield of calories is about 2441 per C. U. per day which is much higher than the first survey.

To conclude, the consumption of milk and the leafy vegetables has been reduced, while of all the other foods, the consumption has been increased, as compared to the consumption during the first survey period.

* * *

Avasarikhured (Ambegaon Block, District Poona)

Nutrient Analysis

In view of modern activities of energy yield of diet in terms of calories is 2306 calories which is less by 314 to that of 1969-70.

1. *Proteins*.—Quantity of proteins taken 80·7 gms. is more by 0·7 gms. with compare to that of 50·7 in 1969.
2. *Fats*.—Quantity of fats taken 50·7 gmr. is less by 0·3 to that of 1969.
3. *Carbohydrates*.—Quantity taken 381·8 gms. is less by 53·2 gms. to that of 1969.
4. *Calcium*.—Quantity taken 654·5 mg. is less by 88 mg. to that of 1969.
5. *Iron*.—Quantity taken 61·3 mg. is less by 20 mg. to that of 1969.
6. *Vitamin 'A'*.—Quantity 5418·5 mg. I. U. is more by 923 I. U. to that of 1969.
7. *Vitamin 'B1'*.—Quantity 10·8 mg. is more by 8·5 mg. to that of 1969.
8. *Vitamin 'C'*.—Quantity 60·7 mg. is less by 3·3 mg. to that of 1969.

* * *

APPENDIX F-I

(Para 11.5)

Food Consumption Survey Finding—Comparative Table
Composition and Analysis of Foods per Consumption Unit per Day

| Food stuffs | Chargaon | | Wadgaon | | Inzala | | Nala | |
|----------------------------|----------------------|--------------------------|----------------------|------------------------|----------------------|----------------------|---------------------|------------------------|
| | Oct. 1969 (in g.) | Aug. 1971 (in g.) | Oct. 1969 (in g.) | Aug. 1971 (in g.) | Dec. 1968 (in g.) | Aug. 1971 (in g.) | May 1969 (in g.) | Sept. 1971 (in g.) |
| Rice | | 575.9 | | 24 | | 46.0 | | 259 |
| Wheat Flour | | Total 84.3 | | Total 192 | | Total 123.8 | | Total 127 |
| Bread | | Cereals | | Cereals | | Cereals | | Cereals |
| Jawar | 758 | .... | 694 | 424 | 655.5 | 506.5 | 334 | 121 |
| Pulses and Dals | 71 | 70.1 | 32 | 90 | 100 | 91.0 | 26 | 60 |
| Leafy Vegetables | 51 | 31 | 22 | 31 | 11 | 46.4 | 49 | 15 |
| Root Vegetables | 67 | 74.6 | .... | 66 | .... | 33.5 | 38 | 66 |
| Other Vegetables | 121 | 72.1 | 28 | 33.0 | 45 | 24.6 | 46 | 23 |
| Fruits .. .. | .... | .... | .... | .... | .... | 5 | 16 | 20 |
| Sugar and Jaggery | 24/25 | 18.9/29.0 | 8/23 | 40/42 | 37 | 38/49 | 33/10 | 49 |
| Vegetables oils fats | 14/4(Hy. oil) | 13 | 12 | 19 | 15 | 14.1 | 23/1.3 | 28/7 Hy. oil |
| Butter and Ghee .. .. | .... | 1.5 | .... | .... | .... | 3 | .... | .... |
| Milk, Curds | 97 | 52.0 | 36 | 29 | 44 | 25.5 | 87 | 51 |
| Fish and Meat | 3/4 | 10/1/17.1 (*Dry fish) | 13/7 | 10/19 | 30 | 4/16.1 | 34/7/6 Dry fish | 49/4/20 (*Dry fish) |
| Eggs | 0.6 | 10 | .... | 1 | 0.8 | 2.5 | 4 | .... |
| Other Foods .. .. | .... | .... | 2 | 10 gr. Nuts +7 pan. | .... | 5.5 Pan | 0.9 Gr. Nuts. | .... |

Nutrient Analysis

| | | | | | | | | |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Total Proteins | 93.9 | 76.4 | 86 | 94 | 102.6 | 97.1 | 55.4 | 69.1 |
| Animal Proteins .. .. . | .... | 5.1 | .... | 4.3 | .... | 2.7 | .... | 13.9 |
| Fats | 38.5 | 22.3 | 31 | 38.7 | 36.6 | 31.0 | 38.9 | 46.2 |
| Carbohydrates | 724.2 | 612.2 | 567 | 585.6 | 597.4 | 593.8 | 330.0 | 437.3 |
| Calcium | 730.7 | 454 | 470 | 589 | 477.1 | 571 | 668.5 | 502 |
| Phosphorus .. .. . | .... | .... | .... | .... | .... | .... | .... | .... |
| Iron (in mg.) | 57.5 | 38.6 | 49 | 62.4 | 53.4 | 61.4 | 44.5 | 33.5 |
| Vitamin A (in IU) | 3,227 | 2,491 | 3,041 | 2,371 | 1,473 | 4,865 | 4,382 | 1,079 |
| Vitamin B1 (in IU) | 2.6 | 1.97 | 2.8 | 3.5 | 3.2 | 3.0 | 1.2 | 1.6 |
| Vitamin C (in mg.) | 85.0 | 53 | 50 | 31 | 17 | 56 | 60 | 28 |
| Calories | 3,619 | 2,949 | 2,891 | 3,096 | 3,129 | 3,038 | 1,890 | 2,441 |

Distribution of Calories

| | | | | | | | | |
|-------------------------------------|----|----|----|----|----|----|----|----|
| Proteins (in per cent) | 11 | 10 | 12 | 12 | 13 | 13 | 12 | 11 |
| Fats (in per cent) | 9 | 7 | 9 | 12 | 10 | 9 | 19 | 17 |
| Carbohydrates (in per cent) | 86 | 83 | 79 | 76 | 77 | 78 | 69 | 72 |

Note.—Number of families surveyed during the first survey
 Number of families surveyed during the second survey

25

10

Recent Diet Survey Findings : Comparative Table

| Food Stuffs | Awasarikhurd village in Ambegaon Block | |
|---|---|----------------|
| | October 1969 | September 1971 |
| 1. Milk (ml.) Curds | 81 | 102.9 |
| 2. Legumes | 34 | 32.5 |
| 3. (a) Cereals | 516 | 533.4 |
| (b) Root vegetables | 43 | 60.3 |
| 4. Green vegetables— | | |
| (a) Leafy greens | 48 | 53.2 |
| (b) Other greens | 55 | 45.8 |
| 5. Fruits | | 32.2 |
| 6. Sugar/Jaggery | 61.26 | 52.3 |
| 7. Oils/Fats | 11.2 | 14.34 |
| 8. (a) Meat/Fish | 1.6 | 3.9 |
| (b) Egg | 3 | 7.1 |
| 9. <i>Ground Nuts</i> | | 18.00 |
| 10. Nutrient Analysis :— | | |
| Total Proteins (in g.) | 80 | 80.7 |
| Fats (in g.) | 51 | 50.7 |
| Carbohydrates (in g.) | 435 | 381.8 |
| Calcium (in Mg.) | 742 | 654.5 |
| Iron (in Mg.) | 81 | 61.3 |
| Vitamin A (in I. U.) | 4,495 | 5,518.5 |
| Vitamin B1 (in Mg.) | 2.3 | 10.8 |
| Vitamin C (in Mg.) | 64 | 60.7 |
| Calories | 2,520 | 2,306 |
| <i>Note.</i> —Number of families surveyed during the first survey | 25 | |
| Number of families surveyed during the second survey | 10 | |

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