

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.)**

# CONTENTS

## PART I

CHAPTER	PAGE
I INTRODUCTION	1
Appointment of the Committee	1
Change in Chairmanship of the Committee	1
Terms of reference .. .. .	2
Tenure .. .. .	3
II MODUS OPERANDI OF EVALUATION, THE METHODS ADOPTED FOR FIELD VISITS AND THE QUESTIONNAIRE	4
III BACKGROUND OF ANP AND SUBSIDIARY PLAN OF OPERATIONS .. .. .	7
Necessity of nutritious food	7
Salient features of Applied Nutrition Programme	7
Components under Applied Nutrition Programme	8
IV EDUCATION, TRAINING, EXTENSION AND PUBLICITY	9
Training of trainers .. .. .	9
ANP Training of ground level functionaries	10
Transfer of Gramsevak Training Centres and Gramsevika Training Centres to the Krishi Vidyapeeths for pur- pose of ANP training .. .. .	10
ANP Extension .. .. .	11
Duration of training for various categories of functionaries	11
Village Women Workers—Medium of Extension ..	12
Publicity and propaganda .. .. .	14
Radio Support .. .. .	15
Films .. .. .	15
Slides .. .. .	15
Press .. .. .	16
Audio Visual Media—Mobile Publicity Van ..	16
Games, Songs and Stories .. .. .	16
Booklets on recipes .. .. .	16
Exhibitions .. .. .	16
National Symbol on ANP .. .. .	17

CHAPTER	PAGE	
V	ROLE OF VOLUNTARY ORGANISATIONS IN THE PROGRAMME	18
	Involvement of Mahila Mandals and Yuvak Mandals ..	18
	UNICEF Financial Assistance to Yuvak and Mahila Mandals ..	19
	Steps to be taken to make these bodies effective ..	20
VI	PRODUCTION ASPECTS OF THE VARIOUS COMPONENTS OF ANP ..	22
	Horticulture ..	22
	Seed supply for ANP gardens ..	22
	Community School and Kitchen gardens ..	22
	School gardens ..	23
	Kitchen gardens ..	24
	Community gardens ..	24
	Cropping pattern ..	26
	Pisciculture ..	28
	Inland fishery ..	29
	Poultry keeping ..	30
	Dairy ..	32
	Bee keeping ..	32
VII	FINANCIAL ASSISTANCE ..	34
VIII	COVERAGE AND SELECTION OF ANP BLOCKS ..	38
	Popular contribution for selection ..	38
IX	UTILISATION OF ASSISTANCE AFFORDED BY INTERNATIONAL AGENCIES ..	40
X	TECHNICAL GUIDANCE ..	43
XI	DIETARY HABITS, DEMONSTRATION AND FEEDING PROGRAMME ..	45
XII	WHETHER THE EXISTING OPERATIONAL PERIOD OF ANP IS ADEQUATE—ANP AFTER THE PROJECT PERIOD ..	49
	Insufficiency of existing operational period ..	49
XIII	ADMINISTRATION AND CO-ORDINATION ..	51
	Administrative matters ..	51
	Recommendations with regard to administrative matters ..	52
	Co-ordination ..	53
XIV	IMPACT OF ANP ON THE PEOPLE ..	55
XV	CONCLUSION ..	57

## CONTENTS

	PAGE
<b>PART II</b>	
Summary of main recommendations .. .. .	61
<b>APPENDICES</b>	
<i>Appendix-A (I)</i> —Statement showing ANP Blocks in Maharashtra State as on 1st October 1971 (Serieswise). ..	73
<i>Appendix-A (II)</i> —Statement showing ANP Blocks Divisionwise and districtwise.	75
<i>Appendix-B</i> —Statement showing the list of districts, blocks and villages visited by the Evaluation Committee on ANP	77
<i>Appendix-C</i> —Questionnaire (4 Parts) .. .. .	79
<i>Appendix-D</i> —Progress of ANP training .. .. .	99
<i>Appendix-E</i> —Programme achievement .. .. .	101
<i>Appendix-F</i> —Extracts from the Report on Food Consumption Survey carried out by the Public Health Institute, Nagpur.	102
<i>Appendix-F-I</i> —Food consumption survey finding—Comparative table.	106

**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	Chalisingaon	(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)
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.  3. Amgaon	.. 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 ?

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*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 \_\_\_\_\_
2. Place of residence : \_\_\_\_\_ Village \_\_\_\_\_ Taluka \_\_\_\_\_ District \_\_\_\_\_  
Occupation : Service/Agriculture/other \_\_\_\_\_
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
<b>Total</b>		.. 105	528	764	1,040	3,551	371	6,359

	Mukhya Sevika	Gram Sevika	Primary School Teachers	Mahila Mandal Members
<b>(II)</b>				
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.
<b>(III)</b>				
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
<b>(IV)</b>				
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
<b>(V) Progress of training since inception of Applied Nutrition Programme training upto 31st March 1971 at the Public Health Institute, Nagpur</b>				
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

<b>I. Coverage</b>			
1.	No. of blocks allotted	.. ..	88
2.	No. of blocks taken up	.. ..	88
3.	No. of villages taken up (approximately)	.. ..	880
<b>II. Horticulture</b>			
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)
<b>III. Poultry</b>			
	Poultry village units taken up	.. ..	1,968
<b>IV. Pisciculture</b>			
1.	Fishery blocks units set up (one inland and 3 coastal)		4
2.	Fingerlings supplied (for inland)	.. ..	1,358 (in thousands)
<b>V. Feeding Programme</b>			
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
<b>VI. Youth and Women's Programme</b>			
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 weighment 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. Ground Nuts .. .. .		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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