

**Operation Guideline under National Programme for  
Prevention and Control of Fluorosis for the year 2020-21.**



**National Health Mission,  
Health & F.W. Department, Govt. of Assam**

## PREFACE

### **NATIONAL PROGRAMME FOR PREVENTION AND CONTROL OF FLUOROSIS (NPPCF)2020-21**

- A. **Introduction:-** Fluorosis, a public health problem is caused by excess intake of fluoride through drinking water/ food product/ industrial pollutant over a long period of time. It's results in major health disorder.1. Dental fluorosis ( affects teeth) 2. Skeletal fluorosis ( affects bones) 3. Non- skeletal fluorosis.( affects soft, non- calcified tissues). NPPCF programme is implemented in 7 nos. of districts. The name of districts are- Nagaon, Kamrup, Karbi Anglong, Nalbari, Dhubri, Karimganj & Udalguri.

**Desirable limit of fluoride in water is 1 ppm(1 mg/ltr.)** Age 0-12 years are more prone to affect.

SOURCES OF FLUORIDE ENTRY TO THE BODY:

1. Drinking water and food.
2. Inhalation/ingestion from industrial avenues.
3. Fluoridated dental products.

PREVENTION:

Fluorosis is a easily preventable disease through practice of interventions.

- Safe fluoride free water
- Diet supplementation.
- Supply of micro nutrient.

- B. **Objectives of the Programme:** To Identify the Dental/Skeletal and non-skeletal Fluorosis patient and differentiate the pain due to Skeletal Fluorosis and other pain. Promoting Nutritious Diet, by Good foods , save drinking water and use of proper cooking method. Apart from that supplementation of multivitamins and minerals to the affected people and refer the fluorosis affected people to tertiary level(GMCH/AMCH) for treatment. Set up of a Fluoride Rehabilitation Centre in fluorosis affected districts.

C. **Key priority areas:**

- a) Time to time survey in the community and school survey in affected areas also in new areas.
- b) Water sample should collected from all drinking water sources of affected areas.
- c) Urine sample should be collected from all affected people, identified Dental Fluorosis from survey.
- d) Diet counselling has to be done for the affected people with help of Counsellor of RBSK/ Nutrition programme.
- e) Monthly report- The monthly report of all activities under taken alongwith the expenditure incurred at the district level should be sent by the District Nodal Officer to State Cell.
- f) Quarterly report- The quarterly report has to be sent by the District Nodal Officer in prescribed format which will be examined by the State Nodal officer and will be forwarded to the Central Fluorosis cell, Govt. of India, MOH&FW, New Delhi.
- g) The Skeletal Fluorosis patient has to be taken for further investigation and treatment at tertiary level health facilities(Medical Collage Hospitals)
- h) Submission of FMR on or before 7<sup>th</sup> day of every month. Booked the expenditure in proper FMR code.

**Budget summary of RoP approval under NPPCF for the year 2020-21.**

<b>Sl. No.</b>	<b>FNR Code</b>	<b>Activity</b>	<b>Total RoP approval (Rs. In lakhs)</b>	<b>State H.Q. Allocation (Rs. In lakhs)</b>	<b>District Allocation (Rs. In lakhs)</b>	<b>Page No.</b>
1.	1.1.6.4	Recurring Grant –in-aid(for ongoing district) Medical Management including treatment, surgery and rehab	49.00	0.00	49.00	5 to 7
2.	1.3.2.3	Recurring grant-in Aid (For ongoing selected districts under NPPCF) Laboratory Diagnostic facilities	11.76	0.00	11.76	7 to 8
3.	9.5.9.1	Training of medical & Paramedical personal at district level under NPPCF	3.50	0.00	3.50	8
4.	11.13.1	Health Education & Publicity for NPPCF	21.00	7.00	14.00	9
5.	16.1.2.1.12	NPPCF Coordination meeting (Newly selected districts and ongoing district)	7.00	0.00	7.00	10
6.	16.1 (16.1.3.3.6)	Travel cost under NPPCF	4.20	0.00	4.20	11
7.	18.9	Fluoride rehabilitation Centre	1.00	0.00	1.00	11
8.	18.10	Fluoride Nilogon( Fluoride removal filter)	7.00		7.00	12
<b>Total</b>			<b>104.46</b>	<b>7.00</b>	<b>97.46</b>	

## District wise budget summary of NPPCF as per RoP approval 2020-21

Activities	F.M.R code	FMR owner	State H.Q.	Nagoan (in lakhs)	Karbi Anglong (in lakhs)	Kamrup(R) (in lakhs)	Dhubri (in lakhs)	Nalbari (in lakhs)	Karimganj (in lakhs)	Udalguri
Recurring Grant – in-aid(for ongoing district) Medical Management including treatment, surgery and rehab	1.1.6.4	SNO/DNO		12.00	7.00	7.00	5.00	5.00	7.00	6.00
Recurring grant-in Aid (For ongoing selected districts under NPPCF) Laboratory Diagnostic facilities	1.3.2.3	SNO/DNO		1.68	1.68	1.68	1.68	1.68	1.68	1.68
Training of medical & Paramedical personal at district level under NPPCF	9.5.9.1	SNO/DNO		0.50	0.50	0.50	0.50	0.50	0.50	0.50
Health Education & Publicity for NPPCF	11.13.1	SNO/SME/DNO/DME	7.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
NPPCF Coordination meeting (Newly selected districts and ongoing district)	16.1.2.1.12	SNO/DNO		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Travel cost under NPPCF	16.1 (16.1.3.3.6)	SNO/DNO		0.60	0.60	0.60	0.60	0.60	0.60	0.60
Fluoride rehabilitation Centre	18.9	SNO		1.00						
Fluoride Nilogon( Fluoride removal filter)	18.10	SNO							7.00	
		<b>Total</b>	<b>7.00</b>	<b>18.78</b>	<b>12.78</b>	<b>12.78</b>	<b>10.78</b>	<b>10.78</b>	<b>19.78</b>	<b>11.78</b>

Total Budget Rs. 104.46 lakhs

**Guideline for NPPCF for the year 2020-21.**

**1. FMR Code:- 1.1.6.4**

**Name of the activity:- Recurring Grant –in-aid(for ongoing district) Medical Management including treatment, surgery and rehab.**

**Owner of the activity at State:- SNO**

**Owner of the activity at District:- DNO.**

**The approve amount is Rs. 49.00 lakhs.(for 7 nos of district)**

- a) Medical treatment is mainly supplementation of micronutrient like Vitamins C & D, Calcium, antioxidants and treatment of malnutrition.
- b) Treatment of deformity includes physiotherapy, corrective plasters, orthoses (Mobility Aids for skeletal fluorosis cases).
- c) The above mentioned vitamins and minerals supplementation and other treatment will be done as per district wise requirement.
- d) **A committee must be form in district for purchase of Vitamins, Minerals and Mobility Aids. The member of the committee should include the Joint Director of Health Services, DNO, District Consultant of NPPCF and DAM/ accounts personal of NPPCF.**
- e) Also suspected or confirmed Skeletal Fluorosis patient may be brought to tertiary level (Medical College Hospital) health facilities for reconstructive survey.
- f) The fund for the ongoing districts is approved as follows. The tentative breakup is given below.

Activities	F.M.R code	FMR owner	Nagoan	Karbi Anglong	Kamrup (R)	Nalbari	Dhubri	Karimganj	Udalguri
Recurring Grant –in-aid(for ongoing district) Medical Management including treatment, surgery and rehab	1.1.6.4	DNO	12.00	7.00	7.00	5.00	5.00	7.00	6.00

Tentative Break up for purchase of Micronutrient, vitamins and mobility aid. This budget is made up of mean percentage of fluorosis patient of ongoing districts. Districts may change the budget breakup on basis of the actual patient of respective districts.

**For Nagoan District @ Rs. 12.00 laksh:**

Activities	Total patient	Unit cost (in rupees)	Required quantity	Total Amount	Remarks
Supplementation	720	60/-	2160	1,29,600.00	This budget is made up of

of multivitamin syrup(Ca/Vit. D3/Zn/Mg) for children	(Approx)		(3 nos. per patient)		mean percentage of fluorosis patient of ongoing districts. Districts may change the budget breakup on basis of the actual patient of respective districts. The amount for the mobility aid is very less, so district can modify the budget as per priority basis within approved budget <b>Rs. 12,00,000/-</b>
Tablet (calcium/vitamin D) for Adult	717 (Approx)	30/-	8604 (12 nos. of strip per patient).	2,58,120.00	
Vitamin C for all tablet	1437 (Approx)	30/-	11496 (8 nos. of strip per patient)	3,44,888.00	
Mobility aid	--	--	--	4,67,392.00	
<b>Total</b>				<b>12,00,000.00</b>	

**For Karbi Anglong , Karimganj and Kamrup(R) districts @ Rs. 7.00 laksh per district..**

Activities	Total patient	Unit cost (in rupees)	Required quantity	Total Amount	Remarks
Supplementation of multivitamin syrup(Ca/Vit. D3/Zn/Mg) for children	720 (Approx)	60/-	1440 (2 nos. per patient)	86,400.00	This budget is made up of mean percentage of fluorosis patient of ongoing districts. Districts may change the budget breakup on basis of the actual patient of respective districts. The amount for the mobility aid is very less, so district can modify the budget as per priority basis within approved budget Rs. 7,00,000/- Kamrup (R) may use the mobility aids fund (Rs. 96,992.00) for supplementation of multivitamins
Tablet (calcium/vitamin D) for Adult	717 (Approx)	30/-	8604 (12 nos. of strip per patient).	2,58,120.00	
Vitamin C tablets for all	1437 (Approx)	30/-	11496 (8 nos. of strip per patient)	3,44,888.00	
Mobility aid	--	--	--	96,992.00	
<b>Total</b>				<b>7,00,000.00</b>	

**For Nalbari and Dhubri District @ Rs. 5.00laksh per district.**

Activities	Total patient	Unit cost (in rupees)	Required quantity	Total Amount	Remarks
Supplementation of multivitamin syrup(Ca/Vit. D3/Zn/Mg) for children	500 (Approx)	60/-	1100 (2 nos. per patient)	66,000.00	This budget is made up of mean percentage of fluorosis patient of ongoing districts. Districts may change the budget breakup on basis of the actual patient of respective districts.

Tablet (calcium/vitamin D) for Adult	600 (Approx)	30/-	6600 (11 nos. of strip per patient).	1,98,000.00	District can modify the budget as per priority basis within approved budget Rs. 5,00,000/-
Vitamin C for all tablet	1100 (Approx)	30/-	7700 (7 nos. of strip per patient)	2,31,000.00	
Contingencies				5000.00	
<b>Total</b>				<b>5,00,000.00</b>	

**For Udalguri District:**

Activities	Total patient	Unit cost (in rupees)	Required quantity	Total Amount	Remarks
Supplementation of multivitamin syrup(Ca/Vit. D3/Zn/Mg) for children	500 (Approx)	60/-	2850 (2 nos. per patient)	171,000.00	This budget is made up of mean percentage of fluorosis patient of ongoing districts. Districts may change the budget breakup on basis of the actual patient of respective districts. District can modify the budget as per priority basis within approved budget Rs. 6,00,000/-
Tablet (calcium/vitamin D) for Adult	600 (Approx)	30/-	6600 (11 nos. of strip per patient).	1,98,000.00	
Vitamin C for all tablet	1100 (Approx)	30/-	7700 (7 nos. of strip per patient)	2,31,000.00	
<b>Total</b>				<b>6,00,000.00</b>	

**2. FMR Code:- 1.3.2.3**

**Name of the activity:- Recurring grant-in Aid (For ongoing selected districts under NPPCF)**

**Laboratory Diagnostic facilities.**

**Owner of the activity at State:- SNO**

**Owner of the activity at District:- DNO.**

**The approve amount is Rs. 11.76 lakhs.**

- An amount of **Rs. 1.68 lakhs** each for 7 nos. of ongoing districts i.e. Karbi Anglong, Kamrup(R) & Nagaon, Dhubri, Nalbar, Karimganj & Udalguri District.
- The fund will be utilized for the strengthening of laboratory diagnostic facilities in district hospitals for early detection and confirmation of fluorosis cases.
- Purchase of Lab equipment.
- Purchase of required chemicals and consumables for testing of water and urine samples in all 7 nos. of district.

Activities	F.M.R code	FMR owner	Nagoan	Karbi anglong	Kamrup (R)	Nalbari	Dhubri	Karimganj	Udalguri
Recurring grant-in Aid (For ongoing selected districts under NPPCF) Laboratory Diagnostic facilities	1.3.2.3	DNO, NPPCF	1.68	1.68	1.68	1.68	1.68	1.68	1.68

### 3. FMR Code:- 9.5.9.1

**Name of the activity:- Training of medical & Paramedical personal at district level under NPPCF.**

**Owner of the activity at State:- SNO**

**Owner of the activity at District:- DNO.**

**The approve amount is Rs. 3.50 lakhs**

a) 2 nos. of district level training programme per districts have to be conducted for Medical & Paramedical Personal including ASHA, ANM, MPW, M&HO, AWW, H.E. etc. for 50 nos. of participants in each programme. The Health and Wellness Centre, RBSK/ RKSK, PHED staffs must be included in the training programme of NPPCF.

b) Total approve budget is Rs. 3.50 lakhs for Nagaon, Karbi Anglong, Kamrup(R), Dhubri, Nalbari, Karimganj and Udalguri districts. Approved amounting Rs. 1.00 lakh per ongoing districts and Rs. 2.00 lakhs for newly elected district.

Activities	F.M.R code	FMR owner	Nagoan	Karbi anglong	Kamrup (R)	Nalbari	Dhubri	Karimganj	Udalguri
Training of medical & Paramedical personal at district level under NPPCF	9.5.9.1	DNO	0.50	0.50	0.50	0.50	0.50	0.50	0.50

District level Training programme:- Per District 2 nos. of training should be conducted .

Sl. No.	Items	Unit	Unit cost	Period	Total
1.	Training Materials	50	40	1	2000.00
2.	Lunch and Tea	50	100	1	5000.00
3.	Banner	2	500	1	1000.00
4.	Hiring Sound System, LCD/ Hall Rent etc.	1	4000	1	4000.00
5.	T.A./ D.A.	50	200	1	10000.00
6.	Resource Person	2	500	1	1000.00
7.	Contingencies	1	2000	1	2000.00
<b>Total</b>					<b>25,000.00</b>



2. **FMR Code:- 11.13.1**

**Name of the activity:- Health Education & Publicity for NPPCF**

**Owner of the activity at State:- SNO/SME**

**Owner of the activity at District:- DNO/DME.**

**The approve amount is Rs. 21.00 lakhs.**

- a) Approve amount is Rs. 21.00 lakhs, 2.00 lakhs per district for 7 nos. of districts and 7.00 lakhs for State H.Q.
- b) Printing of IEC materials, display of hoardings etc. in the affected areas.
- c) Awareness programme at the affected areas.
- d) Group discussion/ interaction with the affected people).
- e) An amount of Rs. 7.00 lakhs is kept for State level IEC such as preparation of hoardings, advertisement, awareness programme, review cum sensitization meeting, IEC for FRC nagaon(newly set up) etc.

Activities	F.M.R code	FMR owner	State	Nagoan	Karbi anglong	Kamrup (R)	Nalbari	Dhubri	Karimganj	Udalguri
Health Education & Publicity for NPPCF	11.13.1	SNO at State / DNO at district	7.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00

**State level IEC**

Sl. No.	Activities	Amount	
1.	Awareness programme cum review meeting for NPPCF district cells at state level.	Rs. 1.50 lakhs	By State NPPCF Cell to maintain the scientific uniformity for mitigation of Fluorosis.
2.	Advertisement (Miking/ Canopy/ Print Media/ Hoardings etc.) in state level convention like Assam Sahitya Sabha and other health mela etc	Rs. 2.00 lakhs	
3.	Printing of IEC materials/ Training module/ Awareness/	Rs. 2.50 lakhs	
4.	Awareness and IEC activities for treatment in FRC, Develop Hoardings on FRC, Wall painting at FRC etc. <b>(kept for Nagaon district will be release latter as per discussion with SME)</b>	Rs. 1.00 lakhs	

**District level IEC**

Sl. No.	Activities per district	Amount	
1.	Awareness programme as per district wise plan (street play, school programme, working with NGO's etc.)	Rs. 0.80 lakhs	5 nos. Street play @ 6000/- x 5= Rs. 30,000/- School Programme = 10 nos. x @ 5000/- = Rs. 50,000/-
2.	Focus Group discussion at affected area @1000/- per discussion total 10 nos. of discussion should be held	Rs. 0.10 lakhs	DNO/ DSC NPPCF
3.	Printing of IEC materials (leaflets/ Booklets, Poster , Health corner board in the school etc.)	Rs. 1.10 lakhs	DNO/DME

3. **FMR Code:- 16.1.2.1.12**

**Name of the activity:- NPPCF Coordination meeting (Newly selected districts and ongoing district).**

**Owner of the activity at State:- SNO**

**Owner of the activity at District:- DNO**

**The approve amount is Rs. 7.00 lakhs**

- a) The approved amount is Rs. 7.00 lakhs, 1.00 lakh per district for 7 nos. of districts.
- b) Coordination meeting should be held with the PHED Department, Social Welfare, Health, Education and NGO's and must be done filed visit by co-ordination team. 2 nos. of meeting must be conduct in a year under the chairmanship Deputy Commissioner.
- c) One meeting must be conducted in the beginning of the year and other is ending of the year.

Activities	F.M.R code	FMR owner	Nagoan	Karbi Anglong	Kamrup (R)	Nalbari	Dhubri	Karimganj	Udalguri
NPPCF Coordination meeting (Newly selected districts and ongoing district)	16.1.2.1.12	DNO	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Breakup per programme:**

Sl. No.	Items	Unit	Unit cost	Period	Total
1.	Training Materials	35	100	1	3500.00
2.	Lunch and Tea	40	300	1	12000.00
3.	Banner	2	750	1	1500.00
4.	Hiring Sound System, LCD/ Hall Rent etc.	1	10000	1	10000.00
5.	T.A./ D.A.	35	500	1	17500.00
6.	Resource Person	2	500	1	1000.00
7.	Contingencies	1	5000	1	4500.00
<b>Total</b>					<b>50,000.00</b>

**@Rs. 50,000/- x 2 nos. = Rs. 1,00,000/-**

4. **FMR Code:- 16.1(16.1.3.3.6)**

**Name of the activity:- Travel cost under NPPCF**

**Owner of the activity at State:- SNO**

**Owner of the activity at District:- DNO**

**The approve amount is Rs. 4.20 lakhs.**

a) The total approved amount is Rs. 4.20 lakhs. An amount of Rs. 0.60 lakhs for 7 nos. of district.

b) The travel cost is approved mainly to travel from District H.Q. to different affected areas.

c) The travel cost is also approved for survey in community and school in affected area, collection of water sample, collection of urine sample, visit to the state NPPCF cell etc.

d) The survey has to be conducted with the help of existing field workers (ANM's/MPW's) and with RBSK/ RKSA team after training on NPPCF about sign & symptoms of fluorosis and must be collect drinking water supply for testing in PHED Laboratory.

Activities	F.M.R code	FMR owner	Nagoan	Karbi anglong	Kamrup (R)	Nalbari	Dhubri	Karimganj	Udalguri
Travel cost under NPPCF	16.1.3.3.6	DNO	0.60	0.60	0.60	0.60	0.60	0.60	0.60

5. **FMR Code:- 18.9**

**Name of the activity:- Fluoride Rehabilitation Centre.**

**Owner of the activity at State:- SNO/DNO, NPPCF**

**The approve amount is Rs. 1.00 lakhs**

1. This amount is given to set up a **Fluoride Rehabilitation Centre** in Nagoan district.

2. As it is adjacent with Hojai district. The affected people of the both the district can take service from FRC, Nagaon because both the districts have Skeletal Fluorosis patients. The FRC has to be set up with existing staffs and equipment of Civil hospital of Nagaon District. The approved amount is only for reagent, Contingencies and other Lab. expenses.

3. The FRC will be included Physiotherapy of the patients Nutrition Education, Blood serum testing, X-ray, Nutrition Supplementation etc.

Training of Doctors /staffs = (from Training Head)

Equipments + Reagents = (Existing facilities)

Furniture = (Existing facilities)

Digital X-ray = (Existing facilities)

Glassware other contingencies = Rs. 1.00lakhs.

( cost of bringing the SF patient to the FRC)

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= Rs.1.00 lakhs

The required equipments and other items may be used from existing facility.

4. DNO is requested to coordinate with INREM foundation (NGO) as they have experience regarding set up of FRC and they can also create awareness among people regarding FRC because they are also working for the fluorosis affected population in Nagaon.

6. **FMR Code:- 18.10**

**Name of the activity:- Fluoride Nilogon( Fluoride removal filter) at Karimganj District.**

**Owner of the activity at State:- SNO/DNO, NPPCF**

**The approve amount is Rs. 7.00 lakhs**

**Rs. 1400/- X 500 nos.= 7,00,000/-**

1. This amount is given to set up a 500 nos. of **Fluoride Nilogon( Fluoride removal filter) at Karimganj District.**

2. As alternative sources of water are not available at Karimganj district.

Fluoride Nilogon is a fluoride removal water filter develop by chemical science department Tezpur University. Presently in collaboration with Tezpur University we have adopted this filter in Karbi Anglong district by own expenditure of the victims. Recently the Karbi Anglong Autonomous district council has given this filter approximately 6000 households.

By observing the positive result of this filter it is planned to provide the filters to 500nos. of house hold at Karimganj district . There are 3874 nos. of household affected in Karimganj district where there is no alternative source of drinking water. So, it is proposed to provide the low cost filters for fluoride free drinking water. As without Fluoride free water the fluorosis problem can't be addressed only by supplying micronutrients alone. The fluororsis affected villages in Karimganj district are 15 nos. and total affected population in 21000 nos. For the first phase we have got approval for 500nos of filter.

The Estimate cost per filter is Rs. 1400/-.(for 100 liters of capacity).

Base line survey will be done for 500 nos. of urine sample and 500 nos. of water samples for fluoride content. Dental and Skeletal Fluorosis are already found among the affected population of the area in Karimganj District.

An End Line Survey will be also done to see the impact of the Fluoride Nilogon filters efficacy in that area.

3. DNO and i/C- Consultant of NPPCF is requested to contact with chemical science department of Tezpur University.

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