

GOVERNMENT OF ODISHA

FOOD SUPPLIES & CONSUMER WELFARE DEPARTMENT

Invitation for Expression of Interest

Food Supplies & Consumer Welfare Department, Odisha intends to procure **Fortified Rice Kernels (FRKs)** from registered manufacturing firms. The details of Terms of Reference (ToR) can be downloaded from <http://www.foododisha.in>

Joint Secretary

Government of Odisha

Supply of Fortified Rice Kernels (FRK)

Terms of Reference (ToR)

Through these terms of reference, Food Supplies & Consumer Welfare Department, Government of Odisha intends to procure **FORTIFIED RICE KERNELS (FRKs)** from registered manufacturing firms, for further blending with regular rice to form fortified rice, which will be distributed under the Public Distribution System (PDS) to beneficiaries. A pilot project of the scheme namely "**Supply of Fortified Rice under Public Distribution System**" will be implemented in **Malkangiri** district of Odisha State.

Objective:

The objective of this Scheme is to address anaemia and micronutrient deficiency amongst beneficiaries consuming rice supplied under Public Distribution System. Based on the experience and learning gained from the pilot project, the distribution of fortified rice will be scaled up. The key objectives of the scheme are listed here:

- Distribution of fortified rice through Public Distribution System, in Malkangiri District to address anaemia and micronutrient deficiencies.
- Coverage of all PDS beneficiaries under the National Food Security Act (NFSA) and State Food Security Scheme (SFSS).
- To evaluate the provision, coverage, and utilization of fortified rice by the target population as well as the efficacy/effectiveness of the consumption of fortified rice in reducing the targeted micronutrient deficiencies in different age and gender groups.

Project Location: Malkangiri district, Odisha

Fortification of rice is a two-step process; which involves the a) procurement of fortified rice kernels and b) their further blending with regular rice in a ratio varying between 0.5%-2%. Fortified Rice Kernels (FRKs) are manufactured by combining rice powder and micronutrients, using appropriate extrusion technology. The micronutrient fortified rice kernels closely resemble the sheen, transparency, consistency and flavour of rice. In the given project, to fortify the rice, these fortified rice kernels will be blended with the rice in a ratio of 1:100, i.e. 1MT of FRK is mechanically blended with every 100 MTs of rice to get 101 MTs of appropriately fortified rice.

Strategy for Rice Fortification: Fortified Rice Kernels (FRK) will be procured by the Odisha State Civil Supplies Corporation Limited (OSCSC) on behalf of Department of Food Supplies & Consumer Welfare, Government of Odisha. The indented consignment (s) of fortified rice kernels shall be delivered at the designated locations of Malkangiri district by the Manufacturer (s) selected and empanelled by Department of Food Supplies & Consumer Welfare, Government of Odisha under rice fortification programme.

Receipt of FRK by Custom Miller from the FRK Supplier (s) as per Indent issued by CSO-cum-District Manager of OSCSC/MD OSCSC Ltd

Blending Operation through a Blending Machine (FRK with Normal rice grain) during milling stage by Custom Miller @1:100 (1-FRK:100-Normal Rice Grain)

Bagging & Delivery of fortified rice at Rice Receiving Centre-cum-Departmental Storage Centre by the Custom Miller

Distribution of fortified rice to NFSA & SFSS PDS beneficiaries at Fair Price Shops

Requirements from FRK suppliers:

1. **Composition of Fortified Rice Kernels:** Each FRK granule to contain - Normal rice powder with micronutrients (i) Iron, (ii) Vitamin B-12 (iii) Folic Acid, as per the proportion decided by the Technical Advisory Committee.
2. **Requirement of Fortified Rice Kernels by Government of Odisha:** Monthly requirement of FRK for Malkangiri is 42 MT (Approx). Supply of FRK will be every four months.

Tentative FRK Delivery Schedule

Malkangiri	Delivery of 1st Consignment	Delivery of 2nd Consignment	Delivery of 3rd Consignment
	By 1 st December	By 31 st March	By 30 th June

3. **FRK Delivery Address:** Consignee is Civil Supplies Officer-cum-District Manager, Odisha State Civil Supplies Corporation Limited, District: Malkangiri, Odisha. FRK shall be delivered at different rice mill points of Malkangiri District as per direction of Civil Supplies Officer-cum-District Manager, Odisha State Civil Supplies Corporation Limited, Malkangiri.
4. **Packaging instructions:** FRK shall be delivered in appropriately labelled **20 Kg woven HDPE bags with an inner LDPE lining**. The packaging material to comply with the specifications given below:

Outer Packaging Material: Woven HPDE
Outer bag: 80g
Inner Liner Packaging Material: LDPE
Liner Thickness: 250 gauge
Packaging Size: 20 kg

5. **Marking instructions:** The markings on the bag should mention the following. The draft label shall be shared with Government of Odisha well in advance for approval.

Name of the Product
Intended Consumption
Ingredients
Veg Logo
Net weight
Detailed address of Manufacturer
Instructions for Use
Storage Conditions
Batch Number/Lot Number/Date & Time of Manufacturing/Shelf Life

6. **A Certificate of Analysis (CoA)** for the produced FRK covering the micronutrient levels and microbiological parameters from an external NABL accredited laboratory should be submitted to Department of Food Supplies & Consumer Welfare, Government of Odisha, Odisha Secretariat, Bhubaneswar, at least 2 (two) weeks in advance of the date of despatch of the FRK to Malkangiri district, for necessary approval by the Technical Advisory Committee. The supplier shall, along with the COA, also submit a 500 gram sealed sample drawn from the consignment to be supplied against the indent received from the Department of Food Supplies & Consumer Welfare, Government of Odisha, for necessary examination and approval by the Technical Advisory Committee after which the consignment (s) shall be despatched.
7. **Shelf Life of FRK:** The FRK produced should have a shelf life of minimum 12 months when the consignment is received at the delivery location.
8. **Responsibilities of Fortified Rice Kernels (FRK) Supplier:** The FRK shall be manufactured using extrusion technology which involves dry mixing of rice flour & premix followed by addition of water. This blend is passed through a twin screw extruder with heating zones, which produces kernels similar in shape and size of rice. These kernels are dried in multilayer dryer and passed through cooling conveyor and packaged.

The FRK manufacturer shall develop and maintain Standard Operating Procedures (SOPs) for the production of the kernels for the given composition which includes details on - (i) Process for manufacture of FRK; (ii) Cleaning of plant & equipment; (iii) testing protocols for in-process and finished goods. Details of the SOP and other aspects of information as mentioned below are to be maintained by the vendor for review and submission with Government of Odisha.

- Certificate of Analysis (CoA) for each batch of premix received for production of the FRK
- Extrusion Temperature
- Dryer Temperature
- Kernel length, width and density
- Cooking quality
- Deviation & Corrective Action Records

9. **Indicative levels of micronutrients and premix:** The indicative levels of micronutrients and premix are below. However, the levels of micronutrients and premix will be as per decisions of the Technical Advisory Committee.

Vitamins and Minerals	Chemical Form	Minimum Levels of micronutrients/ Kg of Fortified rice at beneficiary level	Minimum Levels of micronutrients/ 10 gm fortified rice kernels* (Ex-factory)
Iron	Ferric pyrophosphate (Micronized) Particle size < 3 microns	42.5 mg	47.22 mg
Folic acid	Folic acid	125 ug	250 ug
Vitamin B12	Cyanocobalamine	1.25 ug	2.5 ug

**10 gm fortified rice kernels for blending with 1 kg regular rice to form fortified rice*

To ascertain above levels, given below are the finished product specifications:

Table 2: Finished Product specifications: The specification is indicative. However, the levels of micronutrients and premix will be as per decisions of the Technical Advisory Committee.

Ingredient	Parameter	Specification	Reference	Frequency
Fortified Rice Kernels (Minimum Levels of micronutrients/ 10g of FRK required for blending with 1 kg regular rice for form fortified rice)	Shape	Manufactured grain should resemble with the normal milled rice	Rice supplied to the district of Malkangiri	Each consignment
	Average Grain Length	To match with specification as prescribed for rice by Government of India (5 mm)	Rice supplied to the district of Malkangiri	Each consignment
	Average Grain Breadth	To match with specification as prescribed for rice by Government of India (2 mm)	Rice supplied to the district of Malkangiri	Each consignment
	Moisture	12% w/w (Max) at the time of receipt	ISO 712-2009	Each consignment
	Extraneous Matter	Free from organic and inorganic extraneous matter	Visual Observation	Each consignment
	Kernel Count per g	50 - 75	Weighing	Each Consignment
	Color	White to Off-white (Should nearly match the colour as prescribed for rice by Government of India)	Visual Observation	Each consignment
	Iron	47.22 mg	AOAC 2011.14 (ICP) or AOAC 984.27 using ICP Emission (total iron present in ferric form).	Each consignment
	Folic Acid	250 mic g	AOAC 992.05 or EN 14131 using microbiological extraction	Each consignment
	Vitamin B12	2.5 mic g	AOAC 2011.10, 960.46 or AACC 86-40.01 using HPLC at 550 nm	Each consignment

Ingredient	Parameter	Specification	Reference	Frequency
			wavelength	
	Mesophilic aerobic bacteria	10,000 cfu per gram (Max)	ICC no. 125, AACC 42-11	Each consignment
	Yeasts and Moulds	100 cfu per gram (Max)	ICC no. 146, AACC 42-50	Each consignment
	Cooking test	<ul style="list-style-type: none"> FRK to retain physical properties and micronutrient levels after being subject to washing and cooking Cooking characteristics to be similar to rice supplied under PDS 	Cooking characteristics to be similar to rice supplied under PDS	Each consignment

10. Micronutrient premix used in the development of FRK: The micronutrient premix for production of FRK to be procured from an approved supplier with a valid FSSAI license.

Micronutrient premix must be delivered to the processor of Fortified rice kernels with a complete certificate of analysis (CoA) as well as proof of purchase of premix. Micronutrient premix to be stored in a dry, cool & clean place. Storage temperature should not exceed 25°C. The design and development of the premix to achieve the micronutrient requirement in FRK and fortified rice should include necessary overages as detailed out in Table 3 to cater to losses during the production process.

Table 3-Minimum overages for production and storage/cooking losses to be considered for designing the premix for the production of FRK

Micronutrient	Production Losses	Storage/Cooking Losses
Iron	16%	10%
Folic acid	20%	50%
Vitamin B12	20%	50%

The micronutrient premix shall contain appropriate food grade material. The premix shall be of vegetarian source. Each consignment of premix shall be accompanied by a CoA from an external NABL accredited laboratory. This CoA shall be filed with the FRK manufacturer and shared with Department of Food Supplies & Consumer Welfare, Government of Odisha on email before each batch of production.

11. Food safety and risk assessment at manufacturing premises: The FRK manufacturer must be registered under Food Safety and Standards Authority of India (FSSAI) and should have a valid license for production of fortified rice kernels. For compliance with food safety standards, the processor must be able to demonstrate by principle and practice the adoption, implementation and recording of:

- Good Manufacturing Practice
- Hazard Analysis Critical Control Point program
- Quality Management System

In this context, a Government of Odisha Officer not below the rank of Joint Secretary shall visit the factory without prior notice during any period when the product is being manufactured to check that the GMP and HACCP systems are in place. The Officer may request to see in the FRK manufacturing factory:

- Records (i.e. names of Production and Quality Assurance In charge)
- Records of process control parameters such as temperature inside the extruder in all three zones, dryer and cooler. Moisture content in Raw rice flour, Rice flour + Premix, Just extruded kernel, Kernel after drying and Kernel before packaging.
- Record on FRK testing reports on cooking characteristics, Time & Temperature , Length & width.
- Procedures (e.g. cleaning, personnel hygiene, HACCP, sampling and analysis).
- Work Instructions (e.g. process instructions, cleaning instructions).
- Quality manual for the FRK manufacturing process
- Records on Pest control treatment.
- Test Report on water analysis

12.Specifications for Milled Rice (Broken): Broken rice to comply with the following specifications:

Product	Parameter	Specification	Reference	Frequency
Rice Broken	Moisture	12% (Maximum)	ISO 712-2009	Batch-wise
	Organoleptic (Smell, Color)	Pleasant smell, Typical color (White to Off-White)	Visual Observation	Batch-wise
	Extraneous Matter	Free from all physical impurities.	Visual Observation	Batch-wise
	Mesophillic aerobic bacteria	100,000 cfu per gram (Max)	ICC no. 125, AACC 42-11	Batch-wise
	Yeasts and Moulds	1000 cfu per gram (Max)	ICC no. 146, AACC 42-50	Batch-wise

13.Specifications for Potable/Drinking Water: The potable drinking water to comply with IS 10500:1991 standards. The water should be tested at least once in quarter and reports should be kept in the records.

Recommendations: Fortified rice shall comply, in terms of raw materials, composition or manufacture, except when specified otherwise in this contract with the following guidelines or standards:

- i. (5) Rice, (1) Food Grains meant for human consumption, Regulation 5.4.6 Food Grains, Part 5.4 Cereal & Cereal Products Food Safety and Standard Regulations (2011).
- ii. Codex Standard for Rice (CODEX STAN 198-1995).
- iii. Recommended International Code of Practice: General Principles of Food Hygiene CAC/RCP 1-1969 Rev 4 - 2003 including annex "Hazard Analysis and Critical Control Point (HACCP) System and Guidelines for its application".
- iv. General Principles for addition of essential nutrients to foods: CAC/GL 09-1987 (amended 1989, 1991) of the Codex Alimentarius.

14. Eligibility/Prequalification conditions

- a) The firm should be registered in India under Companies Act/ Partnership Firm/ Sole-proprietorship firm or any other registered body having valid registration certificate.
- b) The firm shall have its own manufacturing unit of Fortified Rice Kernels.
- c) The firm shall have valid **GST registration** issued by concerned authorities.
- d) The FRK manufacturer should possess a valid FSSAI license and comply with plant Hygiene requirements detailed out in FSSAI.
- e) The firm should not have been blacklisted/convicted for any offences or violation of any State or Central act such as essential commodities act etc or any criminal offence under IPC.

15. Documents to be furnished along with application for registration

- a) Copy of Incorporation certificate/ Firm Registration Certificate.
- b) The copy of audited balance Sheet and profit / loss account for past three years duly certified by Chartered Accountant (Statutory Auditor) if it is a own processing unit shall be submitted.
- c) Firm shall submit attested copy of the Income Tax returns of last three years or from the establishment of the plant duly certified with a copy of a PAN card attested by authorized signatory.
- d) Attested copy of Certificate of registration under GST Act as applicable shall be submitted.
- e) The firm shall have to produce the valid license from FSSAI.
- f) An affidavit on Rs 100 Non-Judicial stamp paper and attested by the Notary.
 - i. Not having been prosecuted for violation rules/law under Essential Commodities Act or any such others law or orders there under in any court of law.
 - ii. Not having been black listed by any organization or Government for non-performance of contractual obligation.
- g) In case of partnership firm or Co-operative or Corporate, the Fortified Rice Kernels (FRK) Processing Units, should furnish a copy of the partnership deed or byelaw or memorandum as the case may be. In case of partnership firms the share holding pattern should be duly certified by the Chartered Accountant along with details of name, age, education and experience of the partners. In case of Co operative / corporate body copy of letter of authorization to the Chief Executive or the authorized person to participate in the tender process should be furnished.
- h) The Fortified Rice Kernels (FRK) Processing Units should furnish letter of authority or power of attorney for having authorized the person to sign the documents on behalf of firm or society or corporate body. Attestation of signature of such authorized signatory from the bank where the firm is having its account is essential.
- i) The address proof of the authorized signatory viz Telephone bill/copy of pass port / electricity bill/ voter ID proof should be submitted along with the application. The address proof in respect of the firm shall be either certificate of registration or certificate of incorporation issued by the concerned authority.
- j) Bank account details of firm along with IFSC code, Branch details, address shall be furnished in the letterhead of the firm.

- k) Copy of Experience of running these Services.

16. Other Terms & Conditions

- a) The firm need to submit **EMD** of Rs 5 (five) lakhs (Rupees five lakhs) in shape of a demand draft drawn in favour of '**Managing Director, Odisha State Civil Supplies Corporation Ltd, Bhubaneswar**' payable at Bhubaneswar along with the documents. The EMD of every unsuccessful firm (s) shall be refunded within 15 days of finalisation of the tender process.
- b) The successful bidder upon receipt of communication regarding acceptance of bid by FS&CW Department shall have to submit performance security in shape of Bank Guarantee for an amount equivalent to @5% (five per cent) of the value of the tentative yearly requirement.
- c) All the post selection process including terms of **DELIVERY** of material and payment will be communicated by FS&CW Department to the L1 bidders after accepting the L1 prices.
- d) The lowest valid bid once approved by the FS&CW Department will be declared as successful L-1 bidder and the same will be communicated by e-mail to the successful bidder. However the FS&CW Department reserves the right, without giving any reason, to accept or to reject all or any bid including lowest bid.

17. Mode of Submission & Method of Selection of Proposal:

The proposals shall address all the requirement of this expression of interest and must be submitted in the English language. The intending supplier has to submit the 'COMMERCIAL' proposal in one sealed envelope duly super-scribed in bold mark as "*Expression of Interest for Procurement of FORTIFIED RICE KERNELS (FRKs)*". The proposal shall be prepared in indelible ink. It shall contain no interlineations or overwriting, except as necessary to correct errors made by the bidder itself. Any such corrections must be initialled by the person (or persons) who sign(s) the proposals. The proposals shall be submitted through Speed Post/ Registered Post only to "Food Supplies & Consumer Welfare Department, Odisha Secretariat, Sachivalaya Marg, Bhubaneswar-751001, Odisha" and no hand receipt of the proposal shall be entertained. FSCW Dept would not be responsible for any delays caused by the registered post/speed-post in this matter The Least Cost Basis (LCB) method shall be used to select the supplier.

18. Other considerations:

The FRK manufacturer shall also ensure that each consignment of FRK matches with the rice as per specifications prescribed by Government of India for the ongoing Kharif Marketing Season, in terms of length, width, color and cooking qualities. To help the manufacturer with that, Department of Food Supplies & Consumer Welfare, Government of Odisha will share sealed samples with the manufacturer in advance along with the production schedule.

Annexure-I: APPLICATION FOR SUPPLY OF FORTIFIED RICE KERNELS (FRK)

APPLICATION FOR SUPPLY OF FORTIFIED RICE KERNELS (FRK)

1. Name of the Firm	
2. Office Address of the Firm <ul style="list-style-type: none"> ▪ Telephone No. ▪ Fax No ▪ Mobile No. ▪ e-mail ▪ website 	
<ul style="list-style-type: none"> ▪ Factory Address ▪ Telephone ▪ Fax 	
3. Permanent Account Number (PAN No)	
4. GSTIN No. & date	
5. If Partnership firm a) Name & Address of all Partners b) If Registered under Companies Act, Name of the Chairman and Managing Director with full address c) Name & Address of Proprietor if Proprietor concern	
EMD Details	
6. Year of Establishment of the firm/Company	
7. Annual Turnover (Rs. in Crores) <ul style="list-style-type: none"> ▪ 2015-16 ▪ 2016-17 ▪ 2017-18 	
8. Name of the Authorized signatory (a copy of the authorization to be enclosed wherever necessary)	

I hereby agree to abide by terms & conditions stipulated for submission of expression of interest as Supplier of Fortified Rice Kernels. The duly signed terms and conditions of RFP document is enclosed to this application along with relevant documents.

Date

Place

Signature of the Applicant