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Executive Committee of
the Multilateral Fund for the
Implementation of the Montreal Protocol
Twenty-sixth Meeting
Cairo, 11-13 November 1998

PROJECT PROPOSAL: SENEGAL

This document consists of the comments and recommendations of the Fund Secretariat on the following project:

Fumigant

- Phaseout of methyl bromide used in peanut seed fumigation in Novasen Ltd.

UNIDO

PROJECT EVALUATION SHEET SENEGAL

SECTOR: FUMIGANT ODS use in sector (1997): 0.72 ODP tonnes

Sub-sector cost-effectiveness thresholds: N/A

Project Title:

Phase out of methyl bromide used in peanut seed fumigation in Novasen, Ltd.

Project Data	Methyl Bromide
	Novasen Ltd.
ODS phase-out (ODP tonnes)	0.72
Proposed project duration (months)	24
Total incremental costs (US \$)	73,590
- including contingency (%)	10
Incremental operational cost (US \$)	(10,645)
Total project cost (US \$)	62,945
Local ownership (%)	100
Export component (%)	-
Amount requested (US \$) {Original}	62,945
{Revised}	
Cost effectiveness (US \$/kg)	
National Coordinating Agency	Ozone Office, Ministry of Environment
Implementing Agency	UNIDO
Technical review completed?	Yes

Secretariat's Recommendations:	
Amount recommended (US \$)	62,945
Project impact (ODP tonnes)	0.72
Cost effectiveness (US \$/kg)	N/A
Implementing Agency support cost (US \$)	8,183
Total cost to Multilateral Fund (US \$)	71,128

PROJECT DESCRIPTION

Phase Out Of Methyl Bromide Used In Peanut Seed Fumigation In Novasen, Ltd.

1. The main peanut production site is located in Kaolack region with lesser production in Casamance and Louga regions. Harvesting of peanuts begins in October; once they are dried, they are delivered to some 200 local collection sites, and stored in 13 storage sites. The bagged peanut seed is stacked according to type in pyramids outdoors (dry season). Pyramids are covered with a polyethylene sheet and treated with methyl bromide (140 g/m³ for 72 hours) to kill infestation arising in the field and during transit.
2. Approximately 1.2 metric tonnes of methyl bromide were used in 1997 to fumigate 8,500 tonnes of peanut seeds. The fumigated peanuts are aired to remove methyl bromide gas and transferred into bulk silos. The seed is then transferred from the bags into metal bulk storage silos where an insecticide powder is applied in sandwich layers to prevent reinfestation.
3. The project is aimed only at phasing out methyl bromide in peanut seed fumigation, which will lead to complete elimination of the current use of methyl bromide in the country. Methyl bromide will be replaced by phosphine, which has been demonstrated as an effective, economic and practical alternative treatment. Appropriate training will be provided.
4. The project identifies two other potential users of methyl bromide: (i) a well-constructed fumigation facility (containing 500 kg of methyl bromide in stock) which has not been used since 1980 and which the Government is trying to sell; and (ii) producers of products for exportation (such as raw cotton, dried fish), as importers are stipulating phytosanitary fumigation with methyl bromide prior to export. Some measures have already been taken to avoid an increase in consumption of methyl bromide in the country: the Deputy Minister for the Environment has already been appraised of this issue and will take appropriate preventive action; also importers have been informed that methyl bromide will be banned in the country and that phosphine fumigation is equally effective as methyl bromide. The project states that these issues would be addressed during implementation of the project.
5. The project states that policy measures against methyl bromide import, trade and use (license) have to be combined with the investment project to assist Novasen in the phase out of methyl bromide. Although use of methyl bromide is confined to seed treatment by NOVASEN there are two other commercial reasons which could lead to the adoption of the fumigant.
6. The project includes a series of 5-day phosphine fumigation procedures in the presence of Novasen technicians who will receive on-the-job training. Operational guidelines will be issued. A seed viability check will be carried out in the Kaolack laboratory to monitor any changes as a consequence of fumigation. The second part of the project is the implementation of the use of phosphine in the company on a full commercial scale.
7. Fumigation technicians working on seed storage sites will be trained in the principles of phosphine fumigation, alternative stacking arrangements to the pyramid prior to fumigation, application of phosphine tablets, sealing sheets and maintaining gas-tightness, gas measurement,

safe application of fumigant and disposal of residues, correct handling and storage of fumigation sheets, and Integrated Commodity Management (ICM).

8. The project will be coordinated by the Ministry of the Environment and will be implemented by UNIDO in close cooperation with Novasen, Ltd.

SECRETARIAT'S COMMENTS AND RECOMMENDATIONS

COMMENTS

1. The project concept follows the Executive Committee's guidelines. The Government of Senegal has not yet ratified the Copenhagen Amendment. However, based on an official communication by the Government indicating its intent to complete the ratification within a period of 9 months, the Committee at its 25th Meeting approved a request for preparation of a methyl bromide demonstration project by UNIDO.

2. UNIDO indicated that it has made every effort to reduce the cost and number of international consultants (as it was agreed during the review of the projects submitted to the 25th Meeting of the Executive Committee).

3. Incremental operating savings have been calculated for a period of four years (NPV) at US \$10,645, on the basis of the cost of fumigant before and after the project has been completed. These savings have been considered in the calculation of the incremental cost of the project.

RECOMMENDATION

Taking into consideration the above comments, the Fund Secretariat recommends blanket approval of the project with associated support costs at the funding level shown in the table below:

Project Title	Project Cost US \$	Support Cost US \$	Implementing Agency
Phase out of methyl bromide used in peanut seed fumigation in Novasen, Ltd.	62,945	8,183	UNIDO