

No. 19815

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**MULTILATERAL**

**Agreement establishing the Asian Regional Co-operative Project on Food Irradiation (with annex). Concluded at Vienna on 23 May 1980**

*Authentic text: English.*

*Registered by the International Atomic Energy Agency on 3 June 1981.*

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**MULTILATÉRAL**

**Accord portant création du projet régional pour l'Asie de coopération intéressant l'irradiation des denrées alimentaires (avec annexe). Conclu à Vienne le 23 mai 1980**

*Texte authentique : anglais.*

*Enregistré par l'Agence internationale de l'énergie atomique le 3 juin 1981.*

## AGREEMENT<sup>1</sup> ESTABLISHING THE ASIAN REGIONAL CO-OPERATIVE PROJECT ON FOOD IRRADIATION

(May 23, 1980)

The International Atomic Energy Agency (hereinafter referred to as the "Agency") and the Governments party to this Agreement (hereinafter referred to as the "Parties");

Believing that the establishment of a Regional Co-operative Project on Food Irradiation (hereinafter referred to as the "Project") will contribute to the prevention of malnutrition in the developing countries, the Governments of which are party to the Regional Co-operative Agreement for Research, Development and Training Related to Nuclear Science and Technology,<sup>2</sup> as extended on 12 June 1977<sup>3</sup> (hereinafter referred to as the "Regional Co-operative Agreement");

Desiring to strengthen further their co-operation and to promote closer co-ordination of their efforts in this area of common interest in order to ensure the most efficient utilization of available resources; and

Having negotiated the establishment of the Project pursuant to Sections 4 and 5 of the Regional Co-operative Agreement;

Have agreed as follows:

*Article I.* 1. The objectives of the Project shall be:

- (a) To determine the velocity of deterioration of food, without irradiation and after irradiation at various dose levels;
- (b) To predict the useful storage life of irradiated food, based on deterioration velocity and the time-temperature-tolerance of the product;
- (c) To study packaging materials and method suitable for storage and marketing of irradiated food; and
- (d) To study other matters related to the foregoing.

2. The details of the Project are specified in the annex to this Agreement.

<sup>1</sup> Came into force in respect of the following States on 28 August 1980, the date of receipt by the Director-General of the International Atomic Energy Agency of notifications of acceptance from one Donor Government and two Participating Governments, in accordance with article XI (2):

<i>State</i>	<i>Date of receipt of the notification of acceptance of the Donor (D) or Participating Government (P)</i>
Indonesia .....	30 July 1980 P
Japan .....	28 August 1980 D
Philippines .....	28 August 1980 P
Republic of Korea .....	21 August 1980 P

Subsequently, the Agreement came into force for the following States on the date of receipt by the Director General of the Agency of their notifications of acceptance, in accordance with article XI (2):

<i>State</i>	<i>Date of receipt of the notification of acceptance</i>
Pakistan .....	3 October 1980
Sri Lanka .....	9 October 1980
Thailand .....	28 November 1980
Malaysia .....	1 December 1980
Bangladesh .....	11 December 1980

<sup>2</sup> United Nations, *Treaty Series*, vol. 941, p. 157.

<sup>3</sup> *Ibid.*, vol. 1080, p. 402.

*Article II.* 1. Each Party accepting this Agreement as a Participating Government in accordance with paragraph 1 of article XI shall carry out the portion of the Project assigned to it in accordance with paragraph 3 of article IV. In particular, each Participating Government shall:

- (a) Make available the necessary scientific and technical facilities and personnel for the implementation of the Project; and
- (b) Take every possible measures for the acceptance of scientists, engineers or technical experts designated by the other Parties or by the Agency to work at designated installations, and for the assignment of scientists, engineers or technical experts at its own expense to work at installations designated by the other Parties which accept them for the purpose of carrying out the Project.

2. Each Participating Government shall submit to the Agency an annual report on the implementation of the portion of the Project carried out by it.

*Article III.* Each Party accepting this Agreement as a Donor Government in accordance with paragraph 1 of article XI shall subject to its domestic laws and regulations and within its respective budgetary appropriations:

- (a) Make such contributions of money or in kind for the implementation of the Project as shall be notified annually to the Agency; and
- (b) Take every possible measures for the acceptance of scientists, engineers or technical experts designated by the other Parties or by the Agency to work at designated installations, and at the request of the other Parties or of the Agency, for the assignment of scientists, engineers or technical experts to work at installations designated by the other Parties.

*Article IV.* 1. There shall be established a Scientific Co-ordinating Committee of the Project (hereinafter referred to as the "Project Committee").

2. The Project Committee shall consist of one representative from each Party and one representative from the Agency. These representatives may be accompanied by advisers.

3. The functions of the Project Committee shall be:

- (a) To establish and to amend as necessary the portion of the Project to be assigned to each Participating Government, subject to the consent of such Government;
- (b) To supervise the implementation of the Project; and
- (c) To make necessary recommendations to the Parties and to the Agency with respect to the Project and to keep under review the implementation of such recommendations.

4. The Project Committee shall meet at least once a year.

*Article V.* 1. The Agency shall perform Secretariat duties under this Agreement.

2. The Agency, on the basis of the recommendations made by the Project Committee in accordance with paragraph 3 of article IV and in consultation with the Project Committee, shall:

- (a) Establish annually a schedule of work and modalities for the implementation of the Project;
- (b) Allocate among the Participating Governments the contributions made in accordance with articles III and VI;

- (c) Endeavour to provide technical and other assistance to the Participating Governments in support of their co-operative activities under this Agreement;
- (d) Consider the reports submitted by the Participating Governments on the implementation of their portions of the Project;
- (e) Assist the Parties in the exchange of information and in compiling, publishing and distributing reports on the Project as appropriate; and
- (f) Provide scientific and administrative support for the meetings of the Project Committee.

*Article VI.* 1. The Agency may invite any Member State of the Agency other than the Parties to make special contributions of money or in kind for the Project, through bilateral arrangements between the Agency and the Member State concerned.

2. The Agency shall inform the Parties of such arrangements.

3. The Agency shall administer the contributions made in accordance with article III and paragraph 1 of this article, in compliance with this Agreement and in accordance with its financial regulations and other applicable rules. The Agency shall keep separate records and accounts for each such contribution.

*Article VII.* The Agency and each Party shall ensure the application to the activities carried out under the Project of the relevant safety standards and measures as provided by the Agency, in accordance with the applicable laws and regulations of each Party concerned.

*Article VIII.* Each Party undertakes that any assistance provided to it under this Agreement shall be used only for peaceful purposes.

*Article IX.* Neither the Agency nor any Government making contributions pursuant to articles III and VI shall be held responsible towards the Participating Governments or any person claiming through them for the safe implementation of the Project.

*Article X.* Any dispute which may arise with respect to the interpretation or application of this Agreement shall be settled through consultations between the parties involved in the dispute.

*Article XI.* 1. Any Government party to the Regional Co-operative Agreement may become a party to this Agreement, to which the Agency shall be an original Party, by notification of its acceptance thereof to the Director General of the Agency. There shall be stated in the notification of such acceptance whether such Government elects to become a Party as a Participating Government or a Donor Government.

2. This Agreement shall enter into force on the date of receipt by the Director General of the Agency of notifications of acceptance from one Donor Government and two Participating Governments. With respect to Governments accepting this Agreement thereafter, it shall enter into force on the date of receipt by the Director General of the Agency of such acceptance.

3. This Agreement shall continue in force for a period of three years from the date of its entry into force, provided that the Regional Co-operative Agreement remains in force.

## ANNEX

1. *Food items*

Food items to be studied under the Project are selected from the following:

- Potatoes
- Onions
- Rice
- Fishery products
- Tropical fruits (mangoes as representative)
- Spices

2. *Programme of research and development*

## A. Radiation effect

- (a) Determination of proper pre-irradiation conditions such as curing and ripening stages of food items to be irradiated.
- (b) Determination of optimum irradiation conditions such as dose, temperature and atmosphere of food items.
- (c) Determination of optimum conditions of pilot-scale radiation treatment of food items.
- (d) Determination of optimum storage conditions of irradiated food items.
- (e) Determination of storage life of packaged or unpackaged food items treated by radiation under commercial storage conditions.
- (f) Determination of storage life of irradiated food items prepackaged under controlled conditions.
- (g) Determination of deterioration velocity of irradiated food items using microbiological, chemical and organoleptic properties and visual observation as parameters.
- (h) Determination of chemical and nutritional changes of irradiated food items.

## B. Irradiation technology

- (a) Standardization of dosimetry techniques, such as Fricke and plastic dose-meters and cross calibration of dose-meters among the countries of the Parties.
- (b) Studies on dose distribution of food items under commercially packaged conditions.

## C. Packaging studies

- (a) Determination of radiation effect on packaging materials commercially and potentially used in the countries of the Participating Governments.
- (b) Determination of oxygen and water permeabilities of packaging materials.
- (c) Determination of microorganism, mold and insect penetration of packaging materials.
- (d) Determination of lifetime of reusable packaging materials during the transportation cycle in the countries of the Participating Governments.

## D. Economic evaluation

- (a) Evaluation of existing infrastructure as a step to promoting the commercialization of food irradiation in the country of each Participating Government.
- (b) Determination of the most suitable site of a commercial irradiation facility for treating selected food items in the country of each Participating Government.
- (c) Evaluation of marketing research on selected food items treated by radiation in the countries of the Participating Governments.