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OTHER FUNDS AND PROGRAMMES

UNITED NATIONS FINANCING SYSTEM FOR SCIENCE AND TECHNOLOGY FOR DEVELOPMENT

Project recommendation of the Administrator*

Establishment of the Beijing National Food
Technology and Quality Control Research and Development Centre
(CPR/84/TO1/A/71/99)

I. BACKGROUND

1. China has abundant food resources with large variety of food products and a long history in food-making and processing. In the 35 years since the founding of the People's Republic of China, production from the food industry has increased by more than 600 percent and has become the third largest industry in China, following machine-building and textiles.
2. However, capacities in the food industry need to be strengthened further. In 1980, it was estimated that production from the food industry was only one-third of the total agricultural output. This is obviously incompatible with long-term national economic development.

*Submitted in accordance with the provisions of the Annex to General Assembly resolution 34/218, IX.C, paragraph 37, concerning procedures for the approval of projects to be supported by the Financing System and exceeding \$2 million in total cost.

3. The Chinese Government has recently formulated a development plan for the food industry, aimed at doubling the output by 1990. In order to attain this goal, new technological processes have a major role to play, and the Government is planning to focus on four aspects of food technology:

- (a) The development of basic food ingredients and additives, such as sugar, soybean and cereal derivatives;
- (b) The promotion of R and D in food production;
- (c) The development of food machinery and packaging materials;
- (d) Food quality control.

4. The development of the food industry in China ranks as a major priority in the improvement of living standards. On 25 percent of the world's arable land, the Chinese Government has managed to provide food for all its people. Despite this achievement, levels of nutritional intake and diet quality, particularly of proteins, remain low.

5. In 1981, the average daily consumption of protein per capita was 54.75 grams as compared to 80.7 grams per capita per day in Japan. Of the 54.75 grams per day, animal protein accounts for only 10.79 percent, compared to about 50 percent in Italy, Japan and other industrialized countries.

6. Considering the Chinese dietary habits, the Government now plans to develop both animal and vegetable protein sources, with soy protein as a short-term priority. Two stages are planned in the development of food production. In the first stage, efforts are being made to raise protein consumption to 70 grams per capita per day of which soy and animal protein will account for two-thirds. In the second stage, it is hoped to raise per capita protein consumption to 75 grams per day by the year 2000. In addition increased emphasis will be laid on food quality control in this period. However, further efforts are needed to develop and formulate appropriate standards for food quality and hygiene, both in terms of domestic consumption and for export.

7. The Government of China has accordingly identified the Scientific Research Institute of the Food and Fermentation Industry as the basis for establishing a National Technology and Quality Control Research and Development Centre. The Centre's mandate will be to conduct research and development programmes in food technology; to organize and co-ordinate similar R and D efforts on a country-wide basis; and to undertake scientific and technical information exchange and dissemination.

II. THE PROJECT

8. The general development objective of the project is to improve nutritional and hygienic levels in China's food sector, as a part of the Government's modernization efforts, through the improvement of traditional technologies and the introduction of new technologies for the development of standards for food quality for both products and production procedures.

9. The immediate objective is to establish the Beijing Food Technology and Quality Control Research and Development Centre as the nucleus of a national programme aimed at modernizing China's food industry. Secondary objectives are:

(a) To upgrade laboratory and pilot plant facilities for food analysis, quality control and prototype manufacturing at the Centre;

(b) To develop R and D programmes in protein chemistry, analytical chemistry, food microbiology, food biochemistry, quality control procedures and food processing; including fast methods for production control and product analysis;

(c) To improve current levels of technical capability among scientific and research personnel assigned to the Centre, through the establishment of training and fellowship courses at universities, research centres and food factories abroad, in specialized fields relating to the Centre's work programmes;

(d) To monitor the effects of the pilot plant's processes in nutritional quality, including the definition of process lines and operating conditions with a view to bringing research results up to the industrial level;

(e) To encourage the production and the dissemination of technical information to institutions and industrial production centres.

10. In addition, the project aims to stimulate a closer exchange between Chinese food scientists and their counterparts abroad in more recent and advanced aspects of the biochemistry of food products and components; the nutritional implications of production methods; food technology fundamentals and new processing operations. This exchange, which will be fostered through seminars, fellowships and lecture courses, is also intended to lead to the definition of possible collaborative research programmes between Chinese and international personnel.

11. An important feature of activities will be the linking of research with pilot-scale production in selected processing operations. This is intended to familiarize laboratory personnel and industry practitioners with modern process line technology and to provide a basis for evaluating the effects of operating conditions on food products.

12. The project will be implemented by the Ministry of Light Industry. The Director of the Scientific Research Institute of the Food and Fermentation Industry will serve as National Project Director. Major inputs and activities will be managed under his authority in consultation with a Technical Steering Committee. As the sponsoring institution in China, the State Science and Technology Commission will be responsible for co-ordinating the project implementation with the project authorities.

III. FINANCIAL DATA

13. The expenditure components of the proposed UNFSSTD assistance are as follows:

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| Project personnel (incl. travel) | 304 000 |
| Training | 405 000 |
| Equipment (laboratory and pilot plant) | 1 150 000 |
| Miscellaneous | 110 000 |
| Support costs | 197 000 |
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| Total estimated cost | 2 166 000 |
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14. The Government of Italy has officially indicated that it will provide the necessary funds for the implementation of this project, through a trust fund to UNFSSTI which will be established for this purpose. This trust fund will be administered according to the provisions concerning trust funds conditioned upon procurement from the donor country established by Governing Council decisions 82/5, 83/32 and 84/35.

IV. RECOMMENDATION

15 In the light of the above, the Administrator recommends that the Governing Council approve the project for Establishment of the Beijing National Food Technology and Quality Control Research and Development Centre in China, at a total estimated expenditure of \$2,166,000.