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Japan Fund for Poverty Reduction



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Sustainable Food Fortification in Central Asia and Mongolia

QUARTERLY PROGRESS REPORT

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ABBREVIATIONS

ADB	–	Asian Development Bank
CIP	–	Country Investment Plan
CPO	–	Country Project Office
EA	–	Executing Agency
IDA	–	Iron Deficiency Anaemia
IDD	–	Iodine Deficiency Disorders
IMR	–	Infant Mortality Rate
JFPR	–	Japan Fund For Poverty Reduction
KAN	–	Kazakh Academy of Nutrition
MDG	–	Millennium Development Goal
MMR	–	Maternal Mortality Ratio
MOH	–	Ministry of Health
NGO	–	Nongovernmental Organization
PHC	–	Primary Health Care
RCAO	–	Regional Coordination And Administration Office
SC	–	Steering Committee
SES	–	Sanitary Epidemiological Services
UNICEF	–	United Nations Children’s Fund
USI	–	Universal Salt Iodization

NOTE

In this report, “\$” refers to US dollars.



A. Background

1. The governments of Kazakhstan, Kyrgyz Republic, Mongolia, Tajikistan, and Uzbekistan aim to eliminate iodine deficiency disorders (IDD) and reduce iron deficiency anemia (IDA) and folic acid deficiency. These deficiencies are more common in Central Asia than many other developing countries. Iodine deficiency has a negative impact on fetal brain development, while iron deficiency constrains cognitive development of the younger child, and hampers mental and work performance of the older child and adult. The negative effects of iodine and iron deficiency at a young age are irreversible and affect school achievement and later productivity. Iron deficiency is also a major contributory factor for maternal mortality. Folate deficiency, also prevalent in these countries, causes neurotube defects in infants. These deficiencies have a major impact on the educability and productivity of large segments of the countries' populations, straining education and health systems, lowering productivity, and raising levels of sustained poverty.

2. The Japan Fund for Poverty Reduction (JFPR) 9005 Regional Project¹ (2001-2004) has focused support on six Central Asian countries in economic transition: Azerbaijan, Kazakhstan, Kyrgyz Republic, Mongolia, Tajikistan and Uzbekistan. JFPR 9005 aimed to mitigate IDD and IDA through salt and wheat flour fortification. Most of the activities were focused on a few pilot provinces in each country. Due to the direct and catalytic effects of JFPR 9005, these countries have moved toward universal salt iodization (USI) and begun fortifying wheat flour. After a decade of limited success in attempts to iodize salt, and reduce iron and folate deficiencies, JFPR 9005 created an environment of national commitment and focused its activities on these key nutritional issues. As a result, substantial increases in iodized salt production and the passage of supporting legislation were achieved in all participating countries. While only the Kyrgyz Republic and Azerbaijan had USI legislation at the beginning of JFPR 9005, Tajikistan enacted USI legislation in 2002, followed by Kazakhstan and Mongolia in 2003. Uzbekistan is drafting similar legislation. Today, the iodization level has been adjusted to the world standard, and most of the salt industries have made significant progress in arrangements for self-procurement of potassium iodate. Each country was able to obtain the necessary regulations that allowed fortification equipment and fortificants to be brought to the country and for fortified flour to be produced and sold. While these considerable achievements have convinced the governments and private owners of salt industries and flour mills that USI and substantial wheat flour fortification are possible, the governments and private sector also realize that these achievements may be lost if not made firm and sustainable. The JFPR 9005 experience has helped the governments, and private sector identify steps required for sustainable food fortification, and clarify further developments/actions.

3. In July 2004, the Asian Development Bank (ADB) approved US\$2 million of grant assistance under JFPR regional project² for five Asian Countries in Transition (ACT)³. The goal of the Project is to reinforce and sustain the reduction of IDD, IDA and folic acid deficiency among poor children and women in Central Asia through parallel attention to supply (production and distribution); demand (public awareness and demand creation); and regulation (quality control, implementation of regulations and legislation, and trade facilitation). The specific objectives are to (i) obtain and sustain use of iodized salt by 90% of households; (ii) sustain fortification of at least one third of wheat flour consumed domestically; (iii) build capacity of the private and public sectors to produce quality fortified food; (iv) develop regulatory institutions or incentive schemes to facilitate fortification, and ensure the trade of quality fortified food among Central Asian countries; and (v) build awareness of consumers about IDD and IDA prevention, and the benefits of micronutrient-enriched food.

¹ ADB, 2001. *Improving Nutrition for Poor mothers and Children in Asian Countries in Transition*.

² JFPR 9052 – *Sustainable Food Fortification in Central Asia and Mongolia*, approved on 22 July 2004.

³ Republic of Kazakhstan, Kyrgyz Republic, Mongolia, Republic of Tajikistan, and the Republic of Uzbekistan.

4. The JFPR Project has four major components:

- (i) Strengthening of salt industry and flour mill capacities;
- (ii) Strengthening of Government capacities;
- (iii) Social mobilization and poverty targeting;
- (iv) Project management, monitoring, and evaluation.

5. In contrast to the pilot nature of JFPR 9005, the Project will primarily build the capacity of the public and private sectors in sustaining food fortification. The Project will (i) focus on sustaining salt and flour fortification, which JFPR 9005 has proven technically feasible; (ii) work with the private sector and government agencies nationwide rather than in a few pilot districts; (iii) help the private salt enterprises and flour mills access information, and tender and procure fortificants and equipment by themselves; (iv) deal with the difficult issue of premix procurement by establishing links between the global producers of premix and by encouraging premix production within the region; and (v) strengthen and upgrade the quality assurance system of the public and private sectors to ensure that consumers receive fortified food that meets quality standards.

6. An enhanced and expanded social-marketing campaign, joining millers with civil-society groups and the media, will greatly increase demand for the new fortified wheat flour and its products, especially among poor families who are at greatest risk from IDA. The Project will also help consumers monitor the quality of iodized salt. Universal salt iodization will ensure that the poor have access to quality-iodized salt. Fortified flour has been sold at the same prices as unfortified flour. To increase access of poor and rural households to fortified flour, the Project will review flour distribution methods, and support testing of various cost-effective fortification means, including flour fortification at smaller mills and the use of fortification packets at home.

B. Technical/Project Components

B.1 Regional Meetings, Conferences and Workshops

7. The Regional Coordination Communication Office (RCAO) conducted a regional information meeting on communication strategy and project management⁴ in Bishkek, Kyrgyz Republic, on 22-24 August 2005. Country Project Offices (CPOs) presented their country communication strategies and the outlines of communication/social mobilization plans. Mr. Gary Gleason, Director, Communications Department of Iron Deficiency Project Advisory Service (IDPAS) and JFPR Consultant, facilitated the information meeting and shared an overview of successful communication/social mobilization strategies on nutrition/food fortification. The major operational stages and elements of a communication strategy framework should include: (i) identification of the most important audiences for targeting with communication activities; (ii) identification of any additional research and information gathering that is needed, and to complete the strategy and planning for any such research; and (iii) selection of an effective mix of channels to reach the target audiences. The importance of a well-considered management plan for a communication strategy was stressed. The management plan should also include a component for monitoring the implementation of activities to see how well they are working, and how to use feedback from audiences to make adjustments on subsequent rounds of messages and activities in support of fortified food products.

8. Participants discussed the issues of food fortification advocacy, and the effectiveness of various communication messages and its delivery to target groups. It was noted that the prevalence of IDA, IDD, folic acid deficiency, group B vitamins and zinc deficiency is still high in the Central Asian countries; current food product technologies are micronutrient depleting and good quality food products are still not available to the majority of the population. It was also noted that food fortification is not a priority for the food industry as there was no visible shift in consumer's demands. The meeting defined and revised communication country

⁴ The meeting report can be obtained from ADB/RCAO on request.

strategy goals, and listed criteria for the selection of local communication consultants, involvement of efficient NGOs, communication campaign monitoring, and Project website improvements.

9. The second conference of salt producers on sustainable quality iodization in Central Asia and Mongolia (footnote 4) was held in Tashkent, Uzbekistan, on 22-24 November 2005. The conference had three objectives: (i) to improve the capacity of salt industries in Central Asia through the increased production of improved quality iodized salt, thus helping to sustain the elimination of iodine deficiency disorders in the region; (ii) to provide an opportunity to regional salt, fortificant, and equipment producers to present their products, knowledge and services; and (iii) to establish networks between the salt producers and suppliers of potassium iodate and equipment. The workshop brought together 64 participants from five participating countries: Kazakhstan, Kyrgyz Republic, Mongolia, Tajikistan and Uzbekistan. This included authorized representatives of JFPR Project Steering Committees and Working Groups, food quality control assurance experts, NGO leaders, Project coordinators, and Financial Assistants. Special external sessions were devoted to the issues of project management and reporting. Grant implementation procedures regarding procurement, the engagement of consultants, auditing, and Project website development were reviewed to establish a set of recommendations for program improvement.

10. One of the key meeting objectives was to strengthen the role of salt producers as partners in the national IDD elimination policies by promoting the self-reliant procurement of input materials (potassium iodate, equipment, and laboratory inputs). The Salt Producers Associations and the leading salt companies shared experiences of quality iodized salt production and presented their vision of the necessary activities needed to ensure sustainable quality salt iodization in Central Asia and Mongolia. JFPR project teams presented an overview of project contributions to USI in the participating countries. Suppliers of iodization equipment (SERRA), salt test kits (MBI), and potassium iodate (Ajay-SQM, L-Pharma, and Iodobrom), as well as representatives from the UNICEF Supply Division made presentations on potassium iodate production and terms of supply, and participated in an interactive trade show with country groups, associations, and individual salt industries. Issues addressed during the sessions included product quality assurance management and procedures; product marketing and promotion; input procurement; import/export tariffs, rules and regulations; and joint collaborative efforts in National Food Fortification Alliances (NFAs).

11. Participants agreed that a framework for regional cooperation is essential in achieving the goals of USI, and agreed to continued dialogue between the salt producers/salt associations in the region and the NFAs. The NFAs were encouraged to take a lead in partnership development with the private sector and civil society; more effectively combine tax policy support for flour milling industries; and to efficiently combine the broad communication and education programs for the general public. During the final session, a final statement⁵ was discussed and amended.

12. The regional conference on quality wheat flour fortification in Central Asia and Mongolia (footnote 4) was held in Almaty, Kazakhstan, on 7-9 February 2006. The objectives of the conference were: (i) to improve the capacities of flour milling industries in Central Asia and Mongolia in producing quality fortified wheat flour to mitigate iron deficiency anemia, folic acid deficiency, and other micronutrient deficiencies; (ii) to provide an opportunity for regional wheat grain and flour suppliers to present their products, knowledge, and services; and (iii) to establish networks between flour millers and suppliers of premix and equipment. The workshop brought together 127 participants from five participating countries: Kazakhstan, Kyrgyz Republic, Mongolia, Tajikistan and Uzbekistan. Participants included flour millers, international suppliers, international organizations, the International Association of Operative Millers, food quality-control assurance experts and nutritional researchers from different

⁵ The statement and other workshop documents can be obtained from the Project Web-sites: <http://www.adb.org/Projects/sustainable-food-fortification/default.asp> and <http://www.caffproject.net>

countries. The conference aimed to update participants' knowledge on information and new technologies in fortified wheat flour production. The suppliers of premix and equipment, and the partners of flour milling and bakery industries, exhibited their products and activities to participants and possible purchasers, and attended the plenary sessions and panel presentations. Grant implementation procedures regarding project implementation monitoring, auditing services, and annual country evaluation workshops were reviewed to establish a set of recommendations for program improvement.

13. The meeting reviewed the overall progress of flour fortification in the project countries and discussed urgent issues such as premix procurement and the quality assurance of fortified foods. KAN, RCAO, and the country teams presented the status of IDA and the results of the sentinel study. Flour mill associations presented their vision on wheat flour fortification, and the obstacles that operative flour mills in the region were facing. Issues addressed during the sessions included product quality assurance management and procedures; product marketing and promotion; input procurement; import/export tariffs, rules and regulations; and joint collaborative efforts in NFAs. Dialogue between the international suppliers and the flour mills has been successfully established. Issues of regional cooperation and trade were discussed, and perspectives for strengthening regional activities were highlighted. The meeting indicated an important need for information and technical assistance exchange at the regional level. The harmonization of legislation and trade procedures would require additional efforts and high-level advocacy, and for that purpose a continuous partnership with international development would be needed. During the final session, a conference statement (footnote 5) was discussed and amended.

B.2. Strengthening the Capacities of Salt Industries and Flour Mills

14. From 2001 and within the framework of the JFPR 9005 Project (footnote 1) the multisectoral Country Teams from the participating countries each designed Country Investment Plans (CIPs). The CIPs were founded on a regional consensus regarding the need for regulatory and trade structures to support investment in the fortification of food staples, and proposed national food fortification programs to reduce the high prevalence of IDA and IDD. The country activities were developed through a collaborative process of cross-sector information sharing, priority and recommended investment identification, capacity building, advocacy, and public health analysis. The specific fortification projects outlined in the CIPs were identified on the basis of a feasibility analysis assessing industrial capacity and commercial potential in each country. The JFPR made the initial investment in the establishment of production (purchase of feeders and fortificants, training of food producers on fortification technology and quality assurance and control issues) and the building of critical public systems, including regulation, monitoring, and public education and advocacy on the benefits of fortified food products.

a) Fortified Wheat Flour Production

15. The Project strategy in wheat flour fortification resulted in the following outputs:

In 2001-2003

- design of common premix formulation for all participating countries;
- selection of beneficiary flour mills and the establishment of regular wheat flour fortification and distribution;
- design and adoption of standards on fortified wheat flour;
- establishment of common quality assurance and control systems to be applied at production sites and markets.

In 2004-2006

- design of legislation on wheat flour fortification in all participating countries;
- design and adoption of fiscal incentives for flour millers;
- enlarging of flour mills types to introduce regular wheat flour fortification;
- establishment of self-sustainable procedures on premix procurement;
- introduction of adequate spectrophotometer methods in addition to the spot-tests to be followed by producers and control agencies.

16. The KAN, with the help of nutritionists from participating countries and JFPR consultants, formulated the unique premix (KAP Komplex-1). Electrolytic elemental iron was specified as the iron source. In 2005 KAN started research on additional premix formulations. The JFPR Project provided to all countries on a co-shared basis an adequate amount of KAP Premix to be processed within 2002-2004. However, the production of fortified wheat flour was lower than expected, and stocks of the granted KAP Premix allowed countries to continue fortification programs within 2002-2006. Uzbekistan and Mongolia were the only countries to use the granted premix by the beginning of 2006. The purchase of an additional amount in Uzbekistan was made within the World Bank/GAIN Project. A local company in Kazakhstan (Biomedpreparat Engineering Centre, Stepnogorsk) piloted the production of KAP Komplex-1 and informed about its capacity to produce up to 12 tons per month of KAP Premix. Price estimations and technical specifications were presented to the flour millers in the participating countries. The League of Grain Processors and Bakers of Kazakhstan (LGBK) conducted discussions with international vendors, on the establishment of a regional premix production and distribution site. The LGBK also continued discussions with flour millers in other countries on the establishment of Regional Associations of Flour Millers.

17. The Country Teams started planning for the largest mills. Thinking that the larger mills would be more technically advanced and capable of producing a quality product, and in order to optimize the amount of flour that would be fortified with the limited resources for equipment, only mills with milling capacities greater than 200 MT/day were preferred. Unfortunately for the program, most of the old "soviet" mills in many CIS countries (not just Central Asia) were barely operational and in very poor condition. Problems included wheat shortages, lack of electricity, equipment in poor repair, and a lack of spare parts. Since these larger mills required a large amount of wheat to start up, smaller and more efficient mills with newer equipment were gradually replacing them. Many of these smaller mills were well suited for fortification, but because of their smaller size many were omitted from the first phase of the project. ADB agreed to support the procurement and installation of micro feeders at 17 small/medium scale mills in the Kyrgyz Republic, 20 small/medium scale mills in Mongolia and 15 small/medium scale mills in Tajikistan during 2004-2005. The selection involved mills with 20 MT/day capacities, as wheat flour fortification seems to be uncertain at lower-scale flour mills.

18. Each country was able to obtain the necessary regulations that allowed feeders and premix to be brought into the country, and for fortified flour to be produced and sold (the complexity of this type of activity in CIS countries is no simple accomplishment). Kazakhstan and the Kyrgyz Republic were able to eliminate or reduce tariffs and taxes on imported premix and feeders, and most of the countries obtained technical or GOST standards on KAP Komplex-1 premix and fortified wheat flour. Only Kazakhstan was able to introduce mandatory flour fortification legislation, which would start from 1 July 2006.

19. Before the start of the Project, Kazakhstan had already established an association of flour millers. In 2003-2005 associations of grain processors and fortified food producers were established in Tajikistan, Kyrgyz Republic and Mongolia.

20. In April-June 2006 wheat flour fortification continued in all the participating countries, and the Kazakhstan flour milling industry seemed to reach the desired level. The flour mills in the Kyrgyz Republic also increased production. In Uzbekistan the fourteen initial flour mills resumed fortified wheat flour production, and six new enterprises were equipped with feeders and received premix. The dynamic of wheat flour fortification was progressively visible and participating flour mills reached 62 (initially the Governments selected 130 beneficiary flour mills). The amount of fortified wheat flour produced by each country also progressed, ranging from 10.8% to 56% of the desired annual amount. Consolidated data on JFPR Project beneficiary flour mill activities and their production of fortified wheat flour can be found in Tables 1 and 2.

Table 1. Activity of the Participating Flour Mills in 2005-2006

Country (Flour Mills)	2005		January-June 2006		April-June 2006	
	Active industries	Fortified Flour Production(MT)	Active industries	Fortified Flour Production(MT)	Active industries	Fortified Flour Production(MT)
Kazakhstan (17)	12	88,387	11	128,967	9	109,884
Kyrgyz Republic (21)	9	13,513	13	7,690	6	1,780
<i>large-scale (7)</i>	6	12,991	6	6,710	3	1,500
<i>medium/small (14)</i>	3	2,527	7	980	3	280
Mongolia (27)	6	33,118	14	19,033	10	11,003
<i>large-scale (5)</i>	3	16,911	2	4,106	1	2,482
<i>medium/small (22)</i>	3	16,207	12	14,927	9	8,521
Tajikistan (17)	15	72,773	17	45,912	17	26,104
<i>large-scale (6)</i>	6	57,019	6	29,830	6	17,155
<i>medium/small (11)</i>	9	15,754	11	16,082	11	8,949
Uzbekistan (48)	14	36,859	20	140,000	20	100,000
Total (130):	56	246,665	75	341,602	62	238,831

MT = metric ton

Source: League of Grain Processors and Bakers of Kazakhstan; Association of Fortified Wheat Flour and Bakery Producers of Kyrgyz Republic; Association of Food Producers of Mongolia; Association of Salt Producers and Flour Millers of Tajikistan; Uzbekistan National Flour Fortification Program

Table 2. Consolidated Data on the Production of Fortified Wheat Flour in 2004-2006

Country	2004	2005	January-June 2006		
			Planned annual production (MT)*	Consolidated production (MT)	Consolidated production (%)
Kazakhstan	121,418	88,387	274,000	128,967	47.1
Kyrgyz Republic	31,429	15,518	71,000	7,690	10.8
Mongolia	35,763	33,118	79,200	19,033	24
Tajikistan	58,063	72,773	142,510	45,912	32.2
Uzbekistan	336,260	36,859	250,000	140,000	56.0
Total	582,933	246,665	816,710	341,602	41.8

MT = metric ton

* The planned amount was discussed between CPOs and the food industry on the basis of agreed ratio between the desired amount (33% of consumption amount) and the production capacity of the given flour mill (in metric tons).

Source: Country Project Progress Reports, 2004-2006

21. Project agreements stipulated that in 2003-2005 the beneficiary enterprises would share one-third of premix costs in order to develop self-procurement capacity. An overview of the status of reimbursement is presented in Table 3 below. Flour millers in Kazakhstan and Mongolia fully completed their commitments (Mongolia lost \$297 in reimbursement payments due to the bankruptcy of one flour mill which could not pay for the utilized premix). In Uzbekistan the launch of the GAIN project delayed the flour mills payment of the reimbursement amount, while in the Kyrgyz Republic the flour millers did not provide payments despite continual appeals from the Government and the Project Team.

Table 3. Co-sharing of Premix Costs by Flour Mills in 2003-2006

Country	KAP Premix (tons)	Costs of KAP Premix (\$)		Actual Reimbursement	
		Total	Co-shared Amount Due	Total (\$)	% to Amount Due
Kazakhstan	95.0	483,408	160,423	160,423	100.0
Kyrgyz Republic	15.0	84,028	27,720	292	1.1
Mongolia	8.0	60,000	19,803	19,803	100.0
Uzbekistan	89.0	431,889	129,567	84,595	65.3
Total	207	1,059,325	337,513	265,113	78.5

Source: Country Project Progress Reports, 2004-2005.

Note: Tajikistan beneficiary enterprises were exempted from reimbursement.

22. In Mongolia the Country Team procured 4.1 metric tons of premix from co-shared funds, and a leading flour milling company procured an additional 4 metric tons.

Kazakhstan

23. Kazakhstan is the largest producer and exporter of wheat grain and flour in Central Asia: 14 million hectares is sown annually producing 12-13.8 million tons of grain. Gross production of wheat flour ranges from 1.8-2.2 million tons, and 1.6 million tons is sold domestically. In 2005 the export of wheat flour reached 931.9 thousand tons (43% of total wheat flour production).

24. The production of fortified wheat flour resumed at 11 of the 17 participating wheat flour mills, and reached 109,884 tons during the reporting period (nine flour mills were active). The retained amount of KAP Premix is 36.8 tons and would be utilized by November 2006. The League of Grain Processors (LGBK) conducted preliminary negotiations with suppliers in order to start the procurement of premix from July 2006. The LGBK also conducted feasibility studies on the work of different feeders and compared prices. Experts recommended the use of feeders from Turkey and Russia, and the use of diluted premix. However, premix dilution would require some tests in cooperation with the Kazakh Academy of Nutrition. The flour mills informed about the future procurement of 12 feeders (additional to the 20 feeders procured in 2005). Fifteen new flour mills approached the League of Grain Processors for technical assistance and information on establishing wheat flour fortification. The LGBK also conducted two local workshops for flour millers in Southern Kazakhstan (Kustanai) and Eastern Kazakhstan (Ust-Kamenogorsk).

25. The LGBK in cooperation with KAN and CPO designed a draft national standard on fortified bakery wheat flour. In April-May 2006 the draft standard was reviewed by the flour millers and submitted to the Ministry of Agriculture and the Institute of Standards for comments. The LGBK also continued research on premix dilution in order to ensure adequate wheat flour fortification at all scales of flour mills.

26. The LGBK monitored the pricing of fortified food products. Average costs for wheat flour fortification were \$1.72 per ton of fortified wheat flour. Flour millers have not increased the price of fortified wheat flour, but the LGBK expects a price increase as a majority of the

flour mills move towards the self-procurement of premix and feeders. Possible options for maintaining lower prices include the introduction of incentives for fortified flour producers or the subsidizing of premix supply from public funds.

27. The CPO and LGBK participated in the regional CIMMYT workshop (Almaty, 11-13 April 2006) on bio-fortification and its application in Central Asia.

Kyrgyz Republic

28. The import of wheat grain and wheat flour is increasing despite the capacity of the domestic grain processing industry to meet the demands of the country: 90,000 tons of wheat grain was imported in 2003 and 140,400 tons was imported in 2005. While the gross domestic production of wheat flour in 2005 was 221,700 tons, only 40-50% of the capacity of large-scale flour mills was utilized. The production of fortified wheat flour decreased during the second quarter of 2006 at both large-scale flour mills (5,210 tons to 1,500 tons) and small-scale flour mills (7010 tons to 280 tons). At the small-scale flour mills the decrease in production was due to the technical performance of the Techno Might feeders, which were not adequately adapted to work with KAP Premix and at the mid-scale flour milling lines. CPO negotiated a schedule of technical assistance in July 2006 with the Techno Might Company.

29. The flour millers at large-scale and medium-scale flour mills linked the low amount of fortified wheat flour production to a lack of quality wheat grain, the large trading of imported wheat flour at local markets, and a lack of demand for fortified wheat flour by consumers. The need for adopting some incentives for flour millers was also discussed.

30. Seven flour mills currently use the 'Healthy Food' logo and seven more are preparing to adopt it. The Association of the Producers of Fortified Wheat Flour and Bakery conducted training on the technology and quality control of wheat flour fortification in Bishkek (May 2006) and the Issyk-kul Province (June 2006). The retained amount of premix is 7.25 tons, though its shelf life expires in December 2006.

31. Despite continuous discussions between the Ministry of Health, CPO, and the participating flour mills, the reimbursement of the one-third of premix costs did not begin in the Kyrgyz Republic during the reporting period.

Mongolia

32. In Mongolia wheat flour production is heavily import dependant, as domestic wheat grain production covers only one-third of demand. The shortage of wheat grain and the negative impact of transition to market economy affected the production of wheat flour at a majority of the flour mills. The Mongolian Flour Mills Association estimates the import of wheat flour as 60-70% of annual demand. The lack of turnover funds at small-scale flour mills contributes to lower wheat flour production. The Food Producers Association continued its attempts in reducing the VAT on wheat flour production.

33. Nine flour mills (from 26 beneficiary industries) produced 11,003 tons of fortified wheat flour during the reporting period (13.8% of the planned amount). Only a few flour mills use the 'Healthy Food' logo. The beneficiary flour mills were cooperating with two domestic consultants on wheat flour fortification technologies, who were contracted by the Project. Micro feeders were installed at 15 flour mills (20 industries are planned).

34. The Mongolian Flour Mills Association conducted a round-table on the legal status of wheat flour production and discussed issues concerning domestic wheat grain processing and the import of wheat grain and wheat flour.

Tajikistan

35. In Tajikistan wheat flour production is also import dependant, as domestic wheat grain production covers only 50% of demand. To ensure fortified wheat flour production, the Project supported the procurement and installation of 12 micro feeders at medium-scale flour

mills and three small-scale flour mills. The lack of turnover funds at flour mills and inadequate reporting contributes to lower wheat flour production. The Project supported printing of the 'Healthy Food' logo for 200,000 bags, and this initiative was followed-up by two flour mills. A domestic consultant on wheat flour fortification technology was contracted by the Project through the Association and provided a valuable contribution in the installation and calibration of the micro feeders.

36. During the reporting period, Tajikistan's 17 flour mills produced 206,104 tons of fortified wheat flour (18.3% of the planned amount). Leading flour mills include Kholkhozabad Flour Mill, Jascom Invest Company and Kairakum Flour Mill. The amount of imported fortified wheat flour for the same period was 54,320 tons, which included 3,458 tons of fortified wheat flour within the framework of relief programs.

Uzbekistan

37. The National Wheat Flour Fortification Program (sponsored by GAIN/World Bank) relies on the 14 flour mills which have experience from ADB/JFPR 9005 Project. The Program plans to extend the amount of involved enterprises to include 48 public and ten private mills. Twenty flour mills were equipped with micro feeders (60 units were purchased) and received iron-based premix similar to KAP Komplex-1. Due to delays with feeders and premix procurement and installation, the production of fortified wheat flour was irregular. Overall production since October 2005 was 200,000 tons (including 140,000 tons in 2006). The Project Team also continued collecting funds from flour mills to ensure the regular procurement of premix. The first procurement from the collected funds is expected in October-November 2006.

b) Salt Iodization

38. Contrary to wheat flour fortification, all participating countries had implemented universal salt iodization since the 1970s. The collapse of the former USSR created an unpredicted gap in supplies of potassium iodate and the adequate functioning of the salt industry. Joint assistance campaigns launched by UNICEF in cooperation with other international agencies since 1994 resulted in a significant improvement in the production of iodized household salt and its supply among poor populations of the JFPR Project participating countries. At the beginning of the Project household use of iodized salt varied from 19-30%. By 2006, consumption levels reached 90% in Kazakhstan and the Kyrgyz Republic, 75% in Mongolia, and Tajikistan, and 67% in Uzbekistan (national data sources).

39. The Project strategy in quality salt iodization resulted in the following outputs:

In 2001-2003

- design and adoption of the USI laws and adequate standards on quality iodized salt;
- selection of the leading salt industries and the establishment of regular quality salt iodization and distribution;
- establishment of common quality assurance and control systems to be applied at production sites and markets.

In 2004-2006

- design and adoption of fiscal incentives for salt producers;
- establishment of self-sustainable procedures on potassium iodate procurement;
- introduction of adequate quality control methods in addition to the spot-tests and titration to be followed by producers and control agencies.

40. Support for JFPR Project was directed at the policy process of legislative and regulatory enactments, which in turn led to harmonious salt iodization laws in all countries except Uzbekistan. In the Kyrgyz Republic and Kazakhstan attendant regulations on taxes and tariffs were enacted, and iodized salt standards of 40 ± 15 ppm iodine were promulgated in all countries (Mongolia has adopted the national standard at 30 ± 5 ppm iodine). Chemical supplies, and equipment were provided for salt and urine measurement, and numerous rapid salt iodine field tests were performed at salt enterprises, retail outlets, and in households. JFPR Project financed a series of capacity building events and workshops, and supported the design, development, and printing of numerous communication and media materials, targeted at a wide variety of beneficiary groups, learner audiences, and stakeholders. National and international expert advice and travel were fielded on explicit need, and a strong admin-finance support was maintained throughout.

41. In April-June 2006 quality salt iodization continued in all the participating countries. The amount of iodized salt produced by each country also progressed, ranging from 27.3% to 48.8% of the total desired amount. Consolidated data on the activities of JFPR Project beneficiary salt industries and the production of quality-iodized salt can be found in Tables 4 and 5 below.

Table 4. Activity of the Participating Salt Industries in 2004-2006

Country (Salt Industries)	2005		January-June 2006		April-June 2006	
	Active industries	Iodized Salt Production(MT)	Active industries	Iodized Salt Production(MT)	Active industries	Iodized Salt Production(MT)
Kazakhstan (3)	3	67,494	2	30,091	2	14,982
Kyrgyz Republic (6)	6	12,051	6	4,160	6	1,527
Mongolia (26)	21	5,694	19	2,519.4	17	1,361
Tajikistan (4)	4	30,475	5	19,380	5	10,724
Uzbekistan (13)	13	66,595	13	31,355	13	18,520
Total (52):	46	181,309	45	87,505.4	43	47,114

MT = metric ton

Source: Associations of Salt producers of Kazakhstan, Kyrgyz Republic, Mongolia; Association of Salt Producers and Flour Millers of Tajikistan; Uzbekistan Country Project Office

Table 5. Consolidated Data on the Production of the Iodized Salt in 2004-2006

Country	2004	2005	January-June 2006		
			Planned annual production (MT)*	Consolidated production (MT)	Consolidated production (%)
Kazakhstan	62,975	67,494	72,200	30,091	41.6
Kyrgyz Republic	11,735	12,051	15,200	4,160	27.3
Mongolia	7,057	5,694	5,940	2,519.4	42.4
Tajikistan	22,588	30,475	39,650	19,380	48.8
Uzbekistan	43,004	66,595	70,000	31,355	44.7
Total	147,359	181,309	202,990	87,505.4	43.1

MT = metric ton

* The planned amount was discussed between CPOs and the food industry on the basis of agreed ratio between the desired amount (90% of consumption amount) and the production capacity of the given salt industry.

Source: Country Project Progress Reports, 2004-2006

42. Throughout the Project execution, ADB maintained close working relationships with UNICEF. To facilitate decisions on investments in salt iodization, UNICEF arranged for salt situation assessments in the participating countries. UNICEF project officers in each country also assisted in project activities design, and coordinated the exchange of information between partners and the country team members. UNICEF and JFPR supported an establishment of the Salt Producers' Associations in all the Central Asian countries, including Mongolia.

43. Project agreements stipulated that in 2003-2005 the beneficiary enterprises would share one-third of premix costs in order to develop self-procurement capacity. In Kazakhstan and Mongolia the participating salt companies fully completed their commitments; however in the Kyrgyz Republic and Uzbekistan the salt producers delayed payments. An overview of the status of reimbursement is presented in Table 6 below.

Table 6. Co-sharing of Premix Costs by Salt Industries in 2003-2006

Country	Potassium Iodate (tons)	Costs of Potassium Iodate (\$)		Actual Reimbursement	
		Total	Co-shared Amount Due	Total (\$)	% to Amount Due
Kazakhstan	3.25	52,065	17,355	17,355	100.0
Kyrgyz Republic	1.0	15,140	4,996	4,746	79.3
Mongolia	0.2	3,068	1,023	1,023	100.0
Uzbekistan	3.9	60,372	18,112	12,869	71.1
Total	8.35	130,645	41,846	35,993	86.0

Source: Country Project Progress Reports, 2004-2006.

Note: Tajikistan beneficiary enterprises were exempted from reimbursement.

Table 7. Procurement of Potassium Iodate by Salt Industries in 2006

Country	Annual demand for Potassium Iodate (tons)	January-June 2006	
		Supplied amount (tons)	Sources of Funding
Kazakhstan	4.9	1.4	Salt Industries
Kyrgyz Republic	1.0	0.5	Salt Industries
Mongolia	0.4	n/a	UNICEF
Tajikistan	2.7	0.9	UNICEF/Salt Industries
Uzbekistan	4.8	2.9	UNICEF/Salt Industries
Total	13.8	5.7	

Source: Country Project Progress Reports, 2004-2006.

Kazakhstan

44. Salt iodization in Kazakhstan is based on the Law on IDD Prevention and the national standard on iodized salt, which has been adopted in October 2003. A set of the President's Decrees, Government Decrees and Regulations, and a National Program on IDD Prevention also supports the law. To facilitate quality salt iodization the Government adopted several measures that included eliminating taxes and tariffs on potassium iodate and salt iodization equipment, and mandating procurement of iodized salt by the health and children institutions from the public funds. Procedures for the self-procurement of potassium iodate, fortification equipment and packaging supplies were established and successfully implemented by the salt producers within the last two years. During the reporting period, the AralTuz Company

purchased 1.41 metric tons of potassium iodate from local suppliers. Three salt companies use the 'Healthy Food' logo.

45. Annual demand for iodized salt is about 85,000 tons. There are two main salt companies in Kazakhstan (AralTuz Company and Pavlodar Salt Company), which are capable of covering the country demand. Consolidated production of iodized salt reached 30,091 tons (41.6% of annual demand).

Kyrgyz Republic

46. The salt iodization law was adopted in 2000 and is supported by a set of the President's Decrees, Government Decrees and Regulations, and national programs on IDD prevention. Annual demand for iodized salt is 18,000 tons. There are 19 salt companies in the Kyrgyz Republic, and 14 of these companies have joined the Association of Salt Producers. Domestic production of iodized salt rose from 10,450 tons (including non-iodized salt) in 2002 to 12,051 tons in 2005, and the import of iodized salt reached 7,000 tons (36.7% of total amount). Consolidated production during the reporting period was 1,527 tons (10% of annual demand).

47. On 12 May, the Salt Producers Association in cooperation with CPO and UNICEF conducted training on the marketing and management issues in producing quality-iodized salt.

48. Procedures for the self-procurement of potassium iodate, fortification equipment and packaging supplies were established and implemented by the salt producers within the last year. In 2006 the salt companies purchased 470 kilograms of potassium iodate (about 50% of annual demand) for \$14,100 from its own funds. Thirteen salt companies use the 'Healthy Food' logo and three more are preparing to adopt it. The Salt Producers Association was established in 2003 and consists of the few salt production companies, and trading companies which iodize, pack, and sell imported non-iodized salt.

Mongolia

49. The Mongolian salt industry consists of ten small salt companies in remote areas, and two medium-size companies which process domestic salt from salt deposits. This production yields 835.3 tons (8.9% of annual demand) per year. The four companies in Ulaanbaatar process imported salt from China, and produced 8,380 tons (88.8% of annual demand). About 217.7 tons (2.3% of annual demand) of salt is non-iodized and used for technical purposes in various industries. In addition, each central hospital in remote areas was equipped—with JICA support—with simple iodization equipment to process small amounts of domestic salt.

50. While the annual demand of Mongolia is about 9,430 tons, the project beneficiary enterprises produced 1,360 tons of iodized salt during the reporting period (14.4% of the planned amount). Procedures for the self-procurement of potassium iodate and fortification equipment were not established, as stocks of potassium iodate needed are adequate for meeting the 2006-2007 demands (provided by UNICEF). The 'Healthy Food' logo is used by most of salt companies. However, the quality of domestic salt produced in most other local sites did not comply with the national standard, and iodine content was reduced due to high humidity. The Salt Producers Association conducted activities in establishing adequate quality control and assurance at industrial sites. There were no mechanisms though for withdrawing inadequate salt from the market.

51. The Ministry of Food and Agriculture expressed its vision on establishing modern and large-size enterprises to process domestic salt. The Ministry proposed amendments to the Mining Law in order to strengthen individual entrepreneurs responsibilities in the operation of salt deposits, and ban the dissemination of non-iodized salt. The Salt Association presented the positive results achieved at the Uvs and Zavkhan salt enterprises, which demonstrated that cost-effective solutions could significantly improve the quality of iodized salt.

Tajikistan

52. The salt industry consists of three main enterprises and a newly established company in the Vose area, which collects salt from small individual salt producers (more than one hundred independent miners) and processes its iodization and packaging. The annual demand for iodized salt is 32,000 tons, and the three established salt enterprises produce 30,000 tons accordingly. Production of iodized salt was 10,724 tons (27% of annual demand) during the reporting period.

53. Findings of the MICS Survey (2005) revealed that 47% of households used adequately iodized salt (28% in 2003). Household use of adequately iodized salt rated highest in the Sogd Province (75%), and lowest (27%) in the Khatlon Province. While the national legislation on salt iodization was in place, no further amendments were made in strengthening the implementation of the law and no penalties were adopted for the distribution of non-iodized salt. This led to a high proportion of non-iodized salt at the market, especially in the Khatlon Province where the open salt deposits are located.

54. The survey on the consumption of iodized salt, which was conducted in May 2005 within the framework of the ECD Project in the Khatlon Province, showed that although 82% of households were purchasing iodized salt, the iodine content was inadequate in 70% of the samples (less than 15 ppm), and almost nonexistent in 29% of the samples. SES reported on cases involving false salt packaging (non-iodized salt labeled as properly iodized and including the 'Health Food' logo). However, there were no adequate mechanisms for withdrawing the non-iodized salt from the market.

55. Procedures for the self-procurement of potassium iodate and fortification equipment were not established, as stocks of potassium iodate needed are adequate for meeting the 2006 demand. However, the salt companies purchased 950 kilograms of potassium iodate from the Association. The Association recently began negotiations with international suppliers in order to make contracts for future shipment. There is some doubt though whether the salt producers would buy the potassium iodate because of the high price. The 'Healthy Food' logo is used by most of the salt companies, and packaging supplies are procured by the salt companies on a regular basis.

Uzbekistan

56. During the reporting period, 13 participating salt companies produced 18,520 tons of iodized salt. However, only two or three industries produce iodized salt that meets the national standard, and in most of the cases the iodine content was decreasing due to the high humidity of salt or the inadequate technology of iodization. Some new salt enterprises were recently established and adequately equipped with modern technology and equipment. These recent innovations together with the expected adoption of the USI Law can positively change the situation in Uzbekistan.

57. SES and the Association of Salt Producers reported on cases involving false salt packaging (non-iodized salt labeled as properly iodized). However, the absence of legislative mechanisms does not allow SES to withdraw the non-iodized salt from the markets. Also, the legal status of the Salt Producers Association does not allow it to arrange for supplies of potassium iodate and/or other forms of procurement.

58. Procedures for the self-procurement of potassium iodate and fortification equipment were not established, and UNICEF and MOH agreed to use the existing government agency Uzmedexport, which has a general license on import/export operations, and established procedures, and expertise in procurement and distribution. The Salt Association and CPO assisted in the distribution of 2.9 tones of potassium iodate (supplied from UNICEF funds) to willing salt producers, and the revolving funds were combined in a special Uzmedexport account. However, the collected funds from a few companies were not sufficient to procure the adequate amount of potassium iodate. Hence, Uzmedexport and the Association are currently discussing with the salt producers the procedures for additional purchase. The

mission indicated that the Uzbekistan Government had still not adopted the elimination of taxes and tariffs on potassium iodate and other fortificants, which could also impact the final price of iodized salt.

B.3 Strengthening of the Capacities of the Government

a) Legislation and Regulations on Fortified Food

59. *Kazakhstan* adopted the Universal Salt Iodization Law and the national standard on quality iodized table salt in 2003. Wheat flour fortification is based on an article of the Food Safety Law (enacted in April 2004), which mandates the fortification of premium and first grade wheat flour. The Government has adopted a schedule for introducing wheat flour fortification. It stipulates that the mass production of fortified wheat flour would start from the 1 July 2006 at large flour mills, from 2007 at medium-size flour mills and from 2008 at other types of flour mills. The certification of fortified wheat flour can be made in one of two ways: (i) in the case of occasional wheat flour fortification the flour mill should certify each production consignment; (ii) in the case of mass wheat flour fortification the enterprise may be certified as a whole annually. KAN and the LGBK have designed and adopted intermediate standards on KAP premix and fortified wheat flour. Also, a national standard framework on wheat flour has been adopted, which incorporates the provisions on wheat flour fortification.

60. Amendments to the Food Safety Law concerning the shift from mandatory wheat flour fortification to voluntary fortification were discussed at the regular meeting of the National Commission on Family and Gender Affairs under the President of the Republic of Kazakhstan (9 June 2006). The Commission recommended to the Ministry of Health and Ministry of Agriculture to: (i) preserve the existing article on mandatory wheat flour fortification until the adoption of the special law; and (ii) design and submit the law on mandatory wheat flour fortification. The Commission also invited the local authorities to ensure the procurement of fortified food products from public funds for health and education institutions.

61. The *Kyrgyz Republic* adopted the Universal salt Iodization Law in 2000. The Government has adopted the National Program on IDD Reduction for 2003-2007 and issued several decrees to strengthen control on the import and trade of non-iodized salt. The national standard on quality-iodized table salt, which stipulates the adequate iodine content (40 ± 15 ppm), and the special sanitary regulation (SanPIN) on the production, shipment, and trade of iodized table salt have been enacted. The Parliament of the Kyrgyz Republic had already adopted the law on mandatory wheat flour fortification in 2004, but it was rejected by the President of the Kyrgyz Republic in view of possible concurrence to World Trade Organization (WTO) procedures (the Kyrgyz Republic is a WTO member country). The revised draft was submitted to the Parliament in May 2005, and it is scheduled for consideration in 2006. The national standards on fortified wheat flour and the fortification of wheat flour from domestic wheat grain were adopted. The Government also adopted several regulations in order to promote a demand for fortified wheat flour: the preferential procurement of fortified wheat flour from public funds, and the mandatory fortification of flour is to be processed from the State Reserve Fund. The Ministry of Education instructed all educational institutions on the mandatory use of fortified wheat flour and iodized salt for school breakfasts and lunches. However, there is no visible progress or impact of these regulations.

62. The Technical Regulation Law, which was adopted in 2004 in view of the WTO requirements, has changed the national legislative framework on standards and technical requirements. The Ministry of Industry, Trade and Tourism has authorized the harmonization of the legislation with the WTO procedures. It presented positive comments on the revised draft wheat flour fortification law.

63. *Mongolia* adopted the Universal Salt Iodization Law and the national standard on quality iodized table salt in 2003. Adequate standards on iodine content in salt had already been adopted in 2001. Wheat flour fortification is based on article 5.1.6 of the Food Law (enacted in October 1999), which requires the sustained use and fortification of food staples through adequate internationally recognized technologies to prevent micronutrient deficiency. The Government has adopted essential standards to ensure the adequate fortification, and quality control of fortified food products. Certification of fortified food products remains a part of the Specialized Control Agency.

64. The Project Team in cooperation with the Ministry of Food and Agriculture and the Associations of Salt Producers took active part in the National Conference on the implementation and achievements of the IDD elimination program in Ulaanbaatar on 27 April. The Government of Mongolia with the support of UNICEF, ADB, and WHO organized the conference. The Prime Minister of Mongolia and the UNICEF Regional Director for East Asia and Pacific addressed the conference, which reviewed the multilateral efforts and results of an IDD campaign in Mongolia during the last three years. In his statement, ADB Deputy Country Director noted the visible progress of fortified food production and the cost-effectiveness of food fortification programs, supported by the food industry, civil society, and the nutrition community. The State-Secretary of the Ministry of Food and Agriculture and the President of the Salt Producers Association expressed special thanks to the Government of Japan and ADB in creating an environment for adequate quality salt production in the country. The conference provided an ideal setting for presenting the best practice of cost-effective interventions in the domestic salt industry, which resulted in a significant improvement in the quality of iodized salt. The Government and food industries highly valued the cooperation of ADB and UNICEF in establishing sustainable iodized salt production and discussed further activities towards reaching the 90% consumption target. The conference highlighted the need for concerted activities by central and local authorities, food industries, and consumers in ensuring sustainable fortified food production and consumption.

65. The CPO began positive discussions with the Parliament to ensure the introduction of adequate food fortification mechanisms and mandatory wheat flour fortification. The Ministry of Food and Agriculture (MOFA) proposed to reduce the VAT on wheat flour production to 5% (existing VAT is 15%) on imported wheat grain. It also proposed to totally eliminate VAT on wheat flour produced from domestic wheat grain. The Ministry of Finance was reluctant to this proposal and agreed to reduce the VAT to 10% only. ADB support for the establishment of salt basins and the improvement of quality domestic salt production was highly evaluated, and the Parliament's Food Committee agreed to provide support on dissemination of this positive experience at two salt deposits.

66. *Tajikistan* adopted the Universal Salt Iodization Law in 2002 and the national standard on quality iodized table salt in 2004. However, there were no further amendments made in strengthening the implementation of the law and no penalties were adopted for the distribution of non-iodized salt.

67. The Project Team indicated the development of mandatory wheat flour fortification legislation as a crucial prerequisite for the future success of IDA prevention. The Association of Fortified Food Producers designed the draft law on mandatory wheat flour fortification in December 2005 and submitted it to the Ministry of Health. Following the regional workshop in Almaty in February 2006 the Project Team designed a draft law on "Fortification of Bakery Wheat Flour," a draft intergovernmental agreement on "Iron Deficiency Anemia Prevention in the Commonwealth of Independent States" and revised a draft Governmental Decree on "Fortification of Bakery Wheat Flour." These drafts were discussed with the Governmental Agencies and parliamentarians. The Ministry of Justice and the Ministry of State Revenues made comments and revised the drafts on the basis of the Food and Safety Law. The Project Working Group is currently revising the draft law.

68. In *Uzbekistan* all Ministries and Government Agencies discussed the revised draft USI Law. A group of parliamentarians also designed another draft and proposed that the Cabinet of Ministers consider both options. The draft USI Law was discussed at a workshop (Tashkent, 13 April 2006), which was conducted by CPO and NGO 'Kamalat' for top-decision makers from the Cabinet of Ministers and parliamentarians. A local legal expert incorporated the comments and conclusions that were discussed at the workshop in the draft law, in order to facilitate the review of the draft by the relevant Government agencies. The draft law will be considered by the Cabinet of Ministers in July 2006 and then conveyed to the Parliament of Uzbekistan for final consideration and adoption. The national standard on quality-iodized table salt, which stipulates the adequate iodine content (40 ± 15 ppm), and the special sanitary regulation (SanPIN) on the production, shipment, and trade of iodized table salt have been enacted. The national standards on the requirements for fortified wheat flour and the formulation of Premix for wheat flour fortification were adopted.

b) Quality Control on Fortified Food

69. In accordance with the standards and regulations there is a system for the quality control on fortified food products by food industries, government control agencies, and provisions for consumers' control. The JFPR Project provided one-wave spectrophotometers (WYD Iodine checkers) and mini-titration laboratories for the salt enterprises; provided spectrophotometers for the SES Central Laboratories, and the reference laboratories associated with the Food Producers Associations; and ensured the possibilities for tests of iron and micronutrient content in flour samples at the highly equipped laboratories of the KAN. UNICEF provided salt test kits for social mobilization campaigns and for consumers' control at markets and households.

70. In *Kazakhstan* the spectrophotometers were in the list of standard laboratory equipment for the testing of iron content and micronutrients. SES laboratories and food industries conducted more than 9,000 tests of table salt at markets and 4,787 spot-tests on iron content in wheat flour samples. Nine thousand tons of inadequate salt was withdrawn from markets.

71. A Technical Group on the monitoring and quality control of iodized salt was established at the Kazakh Academy of Nutrition. The Technical Group will include experts from MOH, Ministry of Agriculture, Customs Committee, Committee on Technical Regulations and Metrology, Salt Producers' Association, UNICEF, CPO, SES, KNOK, and the LGBK. The group will also design an application on certifying Kazakhstan as a country with a universal salt iodization status.

72. In June 2006 UNICEF and CDC conducted a national workshop on the monitoring and evaluation of IDD prevention programs. Project Country Team members reviewed existing quality assurance and control systems and discussed recommendations for strengthening these systems.

73. In the *Kyrgyz Republic* the JFPR Project (in cooperation with the Associations of Food producers and Swiss Red Cross) provided one-wave spectrophotometers (WYD Iodine checkers) and mini-titration laboratories for the salt enterprises; two spectrophotometers for the SES Central Laboratory and Reference Laboratory. The Project provided salt test kits for social mobilization campaigns and for consumers' control at markets and households.

74. The Association of Producers of Fortified Wheat Flour and Bakery facilitated spot-tests at industrial sites (79 tests were made during the reporting period). The content of the tested iron was adequate. However, the spectrophotometers that were provided by JFPR Project were not utilized at all. One spectrophotometer was under installation at the Central SES during the mission period, and the other was provided to the Preventive Medicine Institution.

75. The Salt Association ensured control at industrial sites: 1,100 samples were tested by test indicators; 212 samples were tested by WYD Iodine Checkers; and 89 samples were

tested by titration method. While the quality of salt at industrial sites for participating enterprises was adequate, the rate of adequate samples at wholesale and retail markets ranged from 72.5-74.3%.

76. In *Mongolia* the requirements and methods for quality control were adopted in a number of standards and regulations. However, this legal basis needs to be introduced to the food industries, as most of them do not have facilities and capabilities to ensure an adequate control system. At salt industries the use of test indicators remains the main method for checking iodine content, while only a small number of salt industries use WYD-checkers. During the reporting period 2,740 samples were tested at industrial sites, and 29 samples were tested by control agencies.

77. The quality control of fortified flour is still a challenge for the flour milling industries. Only medium-size flour mills have internal laboratories and established spot-test control. At nine flour mills 1,308 samples were checked by spot-test method, and the Biotechnological University tested ten samples on thiamin and riboflavin content.

78. In *Tajikistan* the requirements and methods of quality control were adopted in related standards and regulations. According to SES data, in May 2006, the rate of adequate salt samples was 82.8% for the Khudja Mumin Co. (820 samples), 95% for the Koni Namak Co. (896 samples) and 94.3% for the Yavan Salt Enterprise (370 samples). The situation in the Khatlon Province was discussed at a special meeting of the Local Health Council, which made negative evaluations of the SES monitoring on salt quality and requested the Local Department of Trade to follow the national standard's requirements at all salt industries.

79. In *Uzbekistan* the requirements and methods of quality control were adopted in related standards and regulations. According to SES data, in January-June 2006, the rate of adequate salt samples was 72.5% (8900 samples) with 297 samples (3.3%) having no iodine content at all. The monitoring of quality for fortified wheat flour is made on a regular basis by the flour mills, and on a quarterly basis by the 'Certifikat-Non' Reference Laboratory.

80. An overview of internal/external monitoring on fortified food production in the participating countries is presented in Tables 8-10 below.

Table 8. Data on Quality Control of Iodized Salt at Industrial Sites in January-June 2006

Country	Kazakhstan	Kyrgyz Republic	Mongolia	Tajikistan	Uzbekistan
I. Titration Method					
Adequate samples (%)	100.0%	100.0%	100.0%	95.0%	99.0%
Amount of tests	1,142	89	4,981	14,806	4,398
II. Spectrophotometer's Method					
Adequate samples (%)		100.0%	100.0%	100.0%	
Amount of tests		212	38	1,315	
III. Iodine Salt Test Indicator					
Adequate samples (%)		100.0%		100.0%	98.0%
Amount of tests		1,100		569	9,700

Source: Country Project Progress Reports, 2004-2006

Table 9. Data on Quality Control of Iodized Salt at Local Markets in January-June 2006

Country	Kazakhstan	Kyrgyz Republic	Mongolia	Tajikistan	Uzbekistan
I. Titration Method					
Adequate samples (%)	97.2%	74.3%		78.8%	72.5%
Amount of tests	4,273	2,673		2,041	8,900
II. Spectrophotometer's Method					
Adequate samples (%)		72.5%		89.0%	56.0%
Amount of tests		400		2,581	18
II. Iodine Salt Test Indicator					
Adequate samples (%)	96.0%	86.0%	99.0%	68.0%	66.0%
Amount of tests	350,000	1,712	876	5,797	2,448

Source: Country Project Progress Reports, 2004-2006

Table 10. Consolidated Data on Quality Control of Fortified Wheat Flour in 2004-2006

Country	Kazakhstan	Kyrgyz Republic	Mongolia	Tajikistan	Uzbekistan
I. Spot-tests at the Industrial Sites					
2004	8,850	2,187	425	10,445	3,025
2005	10,473	262	1,341	10,524	—
January-June 2006	6,150	148	1,887	5,423	—
II. Spot-tests at SES and Food Associations Laboratories					
2004	—	76	15	—	—
2005	—	—	30	—	—
January-June 2006	16	—	15	—	—
III. HPLC Tests at the Independent Reference Laboratories					
2004	30	34	11	32	36
2005	1	25	—	—	—
January-June 2006	3	25	16	—	—

Source: Country Project Progress Reports, 2004-2006

c) Affordability of Fortified Food

81. The Project Teams from all participating countries continued price monitoring on fortified food at production sites, and wholesale and retail markets to ensure its affordability to poor families. The Project saw no evidence that the production of quality fortified food would increase prices dramatically, thus allowing target beneficiaries to use the advantages of the fortification program. Consolidated data on fortified food products in 2004-2006 can be found in Table 11 below.

Table 11. Affordability of the Fortified Food Products in 2004-2006 (wholesale and retail prices on the selected fortified food products)

Country	Kazakhstan	Kyrgyz Republic	Mongolia	Tajikistan	Uzbekistan
I. Prices on the Iodized Salt (\$ per kilogram)					
I.a Wholesale prices					
2004	0.19	0.10-0.12	0.15-0.25	0.02-0.03	0.10
2005	0.12	0.07-0.12	0.20-0.35	0.10-0.25	0.12
January-June 2006	0.10-0.12	0.07-0.10	0.12-0.19	0.10-0.25	0.10
I.b Average prices					
2004	0.19	0.12	0.20-0.35	0.03-0.05	0.07-0.14
2005	0.13	0.10-0.15	0.20-0.35	0.10-0.25	0.08-0.15
January-June 2006	0.13	0.10-0.15	0.12-0.19	0.10-0.25	0.08-0.15
II. Prices on the fortified wheat flour (\$ per kilogram)					
II.a Wholesale prices					
2004	0.34-0.35	0.33-0.34	0.25-0.40	0.13-0.33	0.14
2005	0.21-0.26	0.30-0.40	0.20-0.40	0.20-0.40	0.15
January-June 2006	0.25-0.40	0.30-0.40	0.26-0.32	0.20-0.40	
II.b Average prices					
2004	0.34-0.38	0.34-0.36	0.25-0.45	0.20-0.34	0.14-0.15
2005	0.17-0.29	0.33-0.43	0.42-0.45	0.20-0.40	0.15
January-June 2006	0.27-0.30	0.30-0.40	0.26-0.32	0.20-0.40	

Source: Country Project Progress Reports, 2004-2006

B.4 Social mobilization and poverty targeting

82. In *Kazakhstan*, CPO completed the production of printed communication materials on fortified wheat flour, and UNICEF supported the production of communication materials on iodized salt. The Country Communication Team has selected three video spots on the benefits of fortified wheat flour and has tested these on various focal groups (students, health education officers, the general public). Several publications for health and communication workers were published during the reporting period.

83. The Project Team visited the YMAI Orphan's House in the Kyzylorda Province, which was selected for an impact assessment study.

84. In the Akmola Province, the CNOK in cooperation with UNICEF, CPO, and the food industries arranged testing at the retail markets for the presence of fortified food. Volunteers interviewed consumers and informed them on the benefits of fortified food. The CNOK reported an increased interest by wholesale traders for iodized salt and fortified flour (labeled with 'Healthy Food' logo). In the Aktobe Province fortified wheat flour was available at 5-10% of sale points. In the Almaty Province the labeled iodized salt was available at all the trade markets, and trade outlets attended (56 shops and 48 outlets); also fortified wheat flour could be found at the same shops as non-fortified. In the Karaganda Province, the NGOs conducted several workshops and shows on the advantages of fortified wheat flour. In the Kyzylorda Province the NGO conducted a children's painting competition devoted to the theme of children's health, and several workshops and meetings for the target groups were held. The local authorities and the local mass media supported these activities. In the Pavlodar Province monitoring revealed that from 18 brands of table salt sold only four were non-iodized; and from 12 brands of wheat flour sold only one was fortified (Almaty Flour Mill). In Southern Kazakhstan the NGOs conducted several information workshops for students, health workers, and recently confined women.

85. The local Communication Team has produced two issues of 'Kazakhstan Food Fortification News' and renewed the Country Project Web-Page. A draft of the Country Project Newsletter was designed and discussed with KAN and RCAO.

86. In the *Kyrgyz Republic* NGOs continued information and social mobilization work in the Tchui Province and at the wholesale and retail markets in Bishkek. Project stakeholders established the Working Communication Group to supervise the implementation of communication activities. Also, the Ministry of Health has established a Working Group to revise the communication materials on IDD and IDA prevention. CPO also issued the first Newsletter on Project implementation.

87. In Mongolia, the Family Education Center started designing the training module for medical universities on the advantage of food fortification products. The Country Team also took active part in the Government-sponsored 'Open Day of Food and Agriculture Sector' event, which advertised the domestic food industries and products. The Mongol Khan Salt Company (Zavkhan) put on sale quality iodized salt.

88. CPO designed a video on the use and advantages of fortified food, which was shown nationally on prime-time TV. The video included interviews, shots of fortified food production, and speeches by well-known medical doctors and public leaders on wheat flour fortification. This video will also be used by the NGOs in its work in remote area. In April CPO conducted bids for the printing of communication materials and arranged the production of these materials. CPO also issued the first Newsletter on Project implementation.

89. In *Tajikistan*, the Ministry of Education included the special themes on IDD and IDA prevention in the secondary school curriculums. On 27 June CPO, local authorities from the Shomansur district (Dushanvbe) in cooperation with the Yavan Salt Enterprise and UNICEF conducted a theater performance on the advantages of iodized salt and distributed 200 kilograms of iodized salt with 'Healthy Food' logo to poor families. CPO discussed plans for strengthening social mobilization in the Rasht Region. Local authorities of the Faisabad district authorized the traffic police to test trucks with amounts of trade salt for iodine content.

90. The NGOs in cooperation with Project Team continued the preparation of the civil society forum on the issues of inadequate salt iodization and distribution in Khatlon Province in November 20006. It was proposed to design special issues of popular Shifo (health promotion magazine for general public) and The Public Health of Tajikistan (specialized magazine for medical community).

91. The communication team in cooperation with National TV designed and broadcast TV-shots on the situation in the Khatlon Province and on salt supplies to the Asht District. The communication consultant supported several broadcasts and publications in the mass media. In May-June CPO conducted bids for the printing of communication materials and arranged the production of these materials. A draft of the Country Project Newsletter was designed and discussed with KAN and RCAO.

92. In *Uzbekistan*, the Project Team discussed ways for involving NGOs in facilitating the revision and adoption of the Salt Iodization Law. The NGO Kamalot was selected by the Project Team to conduct special information and advocacy activities on the proposed draft law.

C. Financial Performance

93. The Project, funded by the Government of Japan and financed on a grant basis by JFPR, received US\$2 million or it's equivalent for the estimated total costs of project. JFPR funds are spent within the framework of CIPs (Appendix I). A consolidated Statement of Expenditure from the beginning of the Project till 30 June 2006 (Appendixes II and III) shows the progress in funds utilization. Of the total grant amount an estimated 18.26% has been used by the end of the reporting period. The consumption of JFPR funds till 30 June 2006 was \$365,290 (see Table 12).

Table 12. Utilization of JFPR Funds in April-June 2006

Project Expenditures Category	Cost Estimates	Beginning to date (US\$)	This period		Accumulated expenditures	
			US\$	%	US\$	%
Equipment and Supplies	414,000	18,080.11	54,619.55	13.19%	72,699.66	17.56%
Training, Workshops, Seminars	424,000	45,893.58	10,905.57	2.57%	56,799.15	13.40%
Advocacy and Communication Activity	125,000	13,438.32	0.00	0.00%	13,438.32	10.75%
Consulting Services	52,500	3,657.33	7,174.98	13.67%	10,832.31	20.63%
Social Mobilization by NGOs	250,000	39,295.32	26,993.30	10.80%	66,288.62	26.52%
Project Management	225,000	94,695.66	30,598.48	13.60%	125,294	55.69%
Operational Studies and Impact Assessment	50,000	15,651.03	3,936.02	7.87%	19,587.05	39.17%
Other Project Inputs	377,200	200.67	150.00	0.04%	350.67	0.09%
Contingency	82,300	0.00	0.00	0.00%	0.00	0.00%
Total	2,000,000	230,912	134,377	6.72%	365,290	18.26%

Source: Country Project SOE Forms, 2006

94. The use of JFPR funds was low in the Kyrgyz Republic (16%), Mongolia (17.8%), and Tajikistan (24.4%); it was also noted that most of CPOs limited project implementation to training and workshops, the production of communication materials, and routine project management activities. Only in Kazakhstan has the use of JFPR funds reached 58.4%, which fits according to the project implementation schedule. The details of JFPR fund utilization at each country level by 30 June 2006 can be found in Table 13.

Table 13. Utilization of JFPR Funds by the Project Components in 2005-2006 (May 2005 – June 2006)

Country	Component 1	Component 2	Component 3	Component 4	Other Project Inputs	Total
Kazakhstan						
Cost Estimates	32,820	12,900	135,100	76,580	42,600	300,000
Utilized amount, US\$	22,552	1,361	89,496	45,529	16,316	175,253
Percentage %		10.5%	66.2%	59.5%	38.3%	65.6%
Kyrgyz Republic						
Cost Estimates	27,125	36,300	138,200	55,100	43,275	300,000
Utilized amount, US\$	11,788	1,129	10,621	24,471	-	48,009
Percentage %	43.5%		7.7%	44.4%	0.0%	16.0%
Mongolia						
Cost Estimates	45,500	49,500	80,200	72,000	52,800	300,000
Utilized amount, US\$	24,658	1,217	10,621	14,253	2,751	53,500

Country	Component 1	Component 2	Component 3	Component 4	Other Project Inputs	Total
Percentage %	54.2%	2.5%	13.2%	19.8%	5.2%	17.8%
Tajikistan						
Cost Estimates	40,000	34,400	131,000	58,500	36,100	300,000
Utilized amount, US\$	5,112	0	41,102	26,092	871	73,177
Percentage %	12.8%	0.0%	31.4%	44.6%	2.4%	24.4%
Uzbekistan*						
Cost Estimates	49,700	27,900	110,000	60,200	52,200	300,000
Utilized amount, US\$	830	1,322	0	14,296	0	16,448
Percentage %	1.7%	4.7%	0.0%	23.7%	0.0%	5.5%

Source: Country Project Progress Reports, 2005-2006

Note: Uzbekistan CPO utilized the reimbursement funds

95. Contrary to the JFPR 9005 Project, the implementation of JFPR 9052 was based on regular co-sharing by the Project stakeholders in the participating countries. The agreements between ADB and the participating Governments estimate contributions of \$2,881,000; and during the reporting period the CPOs reported actual contributions of \$2,264,845 (including contribution-in-kind).

96. In *Kazakhstan*, the overall contribution was \$629,691 from the local partners. The salt companies purchased packaging equipment and supplies, and potassium iodate for \$608,249; allocated \$401 for advertising, \$161 for reagents, and \$170 for training. The flour mills contributed to the workshops, training, and laboratory supplies to the amount of \$12,040. The flour mills also contributed \$5,570 for laboratory equipment and reagents. The NGOs allocated \$600 of contribution-in-kind and \$600 for training workshops. The Government contributed \$1,900 of contribution-in-kind. UNICEF allocated \$15,000 for the national workshop on the monitoring and evaluation of the IDD programs.

97. In the *Kyrgyz Republic*, the contribution was \$27,143. The salt companies provided \$19,187 for packaging supplies with the 'Healthy Food' logo, and flour millers provided \$1,335. UNICEF allocated \$4,083 for the training of laboratory technicians. The Government's contribution-in-kind was \$2,600.

98. The *Mongolian* contribution during the reporting period was \$56,236; most of this amount was spent by flour millers for advertising the 'Healthy Food' logo and fortified wheat flour, and for the purchase of laboratory equipment and reagents (\$44,337). The salt companies reported on the contribution of \$4,083 for 'Healthy Food' logo advertising and training. The Government's contribution-in-kind was \$7,765.

99. *Tajikistan* informed about the contribution of \$220,948 by flour millers for the production of bags with the 'Healthy Food' logo for fortified wheat flour. The salt companies reported contributions of \$12,706 for 'Healthy Food' logo advertising and the procurement of potassium iodate (400 kilograms).

D. Management and Operations

100. The implementation arrangements of the JFPR Project are as follows: ADB coordinates overall implementation in all five countries through the RCO set up in Almaty, Kazakhstan. RCO is also responsible for the centralized procurement of equipment and fortificants. Participating countries set up Country Steering Committees for project oversight, comprising of representatives from the finance, economic development, and health

ministries; the private food industry; and the NGO community. The MOH of each participating country was functioning as the EA of the JFPR project and established the CPO. The EA in each participating country is responsible for the overall coordination of Project activities in its country, including the following: (i) coordination with other ministries, agencies and NGOs; (ii) approval of annual work plans and disbursement plans; and (iii) ensuring compliance with ADB rules for procurement and disbursement. A Country Project Coordinator (medical doctor), a Financial Specialist and an Administrative Assistant (optional) staffed the CPO in each participating country. The CPO staff has formal contract arrangements with the EA based on the terms of reference approved by ADB. The RCAO staff is recruited by ADB and financed under the Project. The RCAO acts as the central project implementation unit and coordinates Project planning, reporting, monitoring of implementation progress, international procurement, and the organizing of workshops and round table meetings. RCAO responsibilities also include: (i) detailed project planning and management; (ii) assistance to EAs on local procurement and contract administration; (iii) review of withdrawal applications for CPOs imprest accounts; (iv) monitoring the disbursement of funds, including timely submission of withdrawal applications to ADB; (v) preparation of consolidated quarterly progress and completion reports; (vi) coordination of annual audits; (vii) design and support of the project website; and (viii) assistance to ADB/JFPR staff and consultants' missions. KAN acts as a technical advisor to the RCAO and facilitates exchanges with nutritional institutes in the other Project countries.

101. Meetings of the Steering Committees were regularly conducted in Mongolia, Tajikistan, and Kazakhstan. In the Kyrgyz Republic and Uzbekistan the revised membership of the Steering Committees was under adoption by the Government.

102. During the reporting period ADB continued its assistance to the Executing Agencies on audit preparation for the Project implementation. In Mongolia and Tajikistan the Country Project Teams conducted an evaluation of the bid proposals from the local auditing companies and started discussion on contracts. RCAO in cooperation with the Kazakhstan and the Kyrgyz Republic CPOs conducted bids on the auditing service for these two countries. A local auditor's company from the Kyrgyz Republic was selected by the Bid Evaluation Committee and started negotiations on contracts with the Executing Agencies in Kazakhstan and the Kyrgyz Republic.

103. Annual evaluation workshops were conducted in the Kyrgyz Republic, Mongolia, and Tajikistan. The workshops reviewed the progress in project implementation and discussed the pending issues of wheat flour fortification production and regulation; premix utilization and further procurement; quality assurance and control on fortified food; use of the 'Healthy Food' logo; operational studies; and Project impact assessment. These workshops were combined with RCAO evaluation missions to the countries: Kyrgyz Republic (10-15 April), Mongolia (22-30 April), and Tajikistan (10-15 May).

104. In the *Kyrgyz Republic* the Country Team shared the concern of limited wheat flour fortification and considered follow-up actions to increase production and ensure adequate quality control. The Mission also held discussions on Project implementation with key Project stakeholders in the country including the National Fortification Alliance, the Ministry of Agriculture, Water Resources and Processing Industries, Fortified Food Producers Associations, and UNICEF. The issues of food fortification legislation were discussed with the Ministry of Industry, Trade and Tourism and the Ministry of Health. Project Management issues were discussed with the Executing Agency and CPO. The NFA on its next meeting will consider the revised draft law on mandatory wheat flour fortification, review the implementation of previous regulations on fortified food production and sale, and discuss the introduction of some incentives for flour millers.

105. In *Mongolia* an Evaluation Workshop helped the Project stakeholders review its compliance of activities against desired objectives, and revise the schedule and priorities of future actions. The Country Team shared the concern of limited quality control and

assurance on fortified food. The Salt Producers Association would consider the further dissemination of good practices at salt deposits. The increased joint activities of the Consumers Federation and the Association of Food Producers can facilitate the demand for fortified wheat flour and also introduce some incentives for food industries. The Steering Committee on its next meeting will consider supporting fiscal incentives for food producers in conjunction with strengthening quality assurance and control at both production sites and food markets.

106. On 26-29 April, the Mission also held discussions on Project implementation with key Project stakeholders including the Parliament of Mongolia, the Ministry of Food and Agriculture, Fortified Food Producers Associations, National Federation of Consumers Association of Mongolia, Mongolian Women's Federation, and UNICEF. The issues of food fortification legislation were discussed with the Ministry of Industry, Trade and Tourism and the Ministry of Health. Project Management issues were discussed with the Executing Agency, ADB Country Mission, and the CPO.

107. The Mission took part in the National Conference on the implementation and achievements of the IDD elimination program in Ulaanbaatar on 27 April. The Government of Mongolia with the support of UNICEF, ADB, and WHO organized the conference. The Prime Minister of Mongolia and the UNICEF Regional Director for East Asia and Pacific addressed the conference, which reviewed the multilateral efforts and results of an IDD campaign in Mongolia during the last three years. In his statement, ADB Deputy Country Director noted the visible progress of fortified food production and the cost-effectiveness of food fortification programs, supported by the food industry, civil society, and the nutrition community. The State-Secretary of the Ministry of Food and Agriculture and the President of the Salt Producers Association expressed special thanks to the Government of Japan and ADB in creating an environment for adequate quality salt production in the country.

108. The Mission held additional meetings with a team from the Public Nutrition and Development Center (PNDC) under the National Development and Reform Commission of China in Beijing on 21 April 2006 on the issues of national flour fortification program implementation. On 2 May 2006 the Mission discussed the cooperation of Central Asia salt producers with the leadership of the China Salt Import and Export Company, and the progress in design of the simple spectrophotometer equipment in identifying the content of iron and some additional vitamins.

109. In *Tajikistan* an Evaluation Workshop helped the Project stakeholders review its compliance of activities against desired objectives, and revise the schedule and priorities of future actions. The Country Team shared concerns of serious delays in Project implementation, especially in the design and consideration of the Workplan activities. The Steering Committee should concentrate its activities on legislation and regulation enforcement, and the strengthening of quality control and assurance on fortified food. The relevant Government authorities should consider the issues of illegal non-iodized salt distribution. The increased joint activities of the SES, Tajikistan Standard Agency and the Antimonopoly Agency can facilitate the production and distribution of quality fortified food products. The Steering Committee on its next meeting will consider supporting fiscal incentives for food producers in conjunction with strengthening quality assurance and control at both production sites and food markets. Fortified food advocacy should benefit from the support provided by the President of Tajikistan and the Project Team can enhance the information, education and communication activities on food fortification. The NGOs Council should be properly guided by the Steering Committee in order to increase demand and promote food production of the legal producers and Food Producers Association activities.

110. On 12-15 May the Mission also held discussions on Project implementation with key Project stakeholders in the country including the Office of the President of Tajikistan, the Association of Fortified Food Producers, the Council of NGOs under the JFPR 9052 Project and UNICEF. The issues of food fortification legislation were discussed with the Parliament

and the Ministry of Health. Project Management issues were discussed with the Executing Agency, ADB Country Mission, and the CPO.

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