

Research-data
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Food-crisis & Birth control

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FOOD - CRISIS & BIRTH - CONTROL

(1)

DURING the war which spent eight years since the China Incident, the Government authorities made frequent pronouncements that they would secure national stability of living and guarantee the distribution of the minimum necessary amount, but the latter half of the period saw gradual pressure in food conditions and a miserable state of national food life.

The amount of ration is far short of the minimum necessity, and that needs no proving from the viewpoint of dietetics.

Look at the populace crazily engaged in hunting for foodstuffs by 'black' transactions: Who would willingly be going out for securing foodstuffs, when he is well aware of his 'black' conduct and it costs him such an amazing amount of money? Isn't it an inevitable necessity for him to keep off his weakening away through insufficient supply of nutrition due to the living with rationed amount of foodstuffs only?

The whole nation is now on top of suffering from food shortage, far from the stable state of food life, as well as post-war pangs in every other phase of national life. A great decrease had been estimated in the rice crop in 1945: the Mainichi, Jan. 14, reported the greatest crop failure since 1904, i.e. less than 40,000,000 Koku. This is an awful crisis in food. How to wade through it is not an easy task. Not a few experts have been devoted to the solution of the problem. Birth-control is one of those discussions being made by them.

The pros and cons of birth-control are to be dealt with not only from food problem but from eugenics, the perpetuity of the race, and from the angle of women's culture. It must be studied from many a side, but let us limit ourselves within the problem of seeing whether birth-control will be effective or not for conquering this precipitous, imminent question of food life.

(2)

THE Cabinet Statistics Bureau Report says that the population of Japan Proper was about 72,000,000 on Nov. 1, 1945. Personally, I have a doubt in this number, but let us take this as the basis for our present discussion.

In the first place, supposing that there is no change in the recent death-rate, i.e. 17 deaths per 1,000 persons, and that there will be no change this year, either the total sum of deaths of this one year will be

$$72,000,000 \times \frac{17}{1,000} = 1,224,000.$$

No main foodstuffs are distributed to those and the amount to be distributed will be saved that much. But those 1,224,000 do not die all at once on Oct. 31, 1946, so the distribution of main foodstuffs for one year is not wholly saved. In other words, those who die on Nov. 2, 1945 are stopped being distributed their rations completely, while those who die on Oct. 31, 1946, are distributed their rations for one year. Accordingly, seen from the average viewpoint, half year's distribution of main food-stuffs is necessary to those dead persons even.

The amount of rationing is different according to ages:

110g.(7.7 shaku)	for those aged	0 - 1.
150g.(10.5 ")	"	2 - 4.
240g.(16.8 ")	"	5 - 9.
340g.(23.8 ")	"	10 - 14.
300g.(21.0 ")	"	15 - 59.
270g.(18.9 ")	"	60 -----

Those 1,224,000 dead persons can be classified as follows according to the death-rate classified in accord with ages hitherto used:

0 - 1 Years old	.....	293,000.
5 - 4 "	.....	144,000.
10 - 14 "	.....	34,000.
15 - 59 "	.....	550,000.
60----- "	.....	185,000.

The following is the distributed rations of main foodstuffs to be reduced, counted in consideration of the distributed rations of main food-stuffs of those dead persons classified in accord with ages.

<u>AGES</u>	<u>THE NUMBERS OF THE DEAD</u>	<u>DISTRIBUTED RATIONS OF HALF YEAR</u>
0 - 1	293,000	41,173.3 Koku
2 - 4	144,000	27,402.1 "
5 - 9	34,000	10,335.3 "
10 - 14	22,000	9,990.0 "
15 - 59	549,000	210,000.2 "
60-----	184,000	63,874.2 "
	<u>1,224,000</u>	<u>363,181.1 "</u>

According to the above account, the quantity of distribution to be saved for the 1,224,000 dead due to the stop of distributing main foods-tuffs is 363,181 koku.

Granted that the death-rate is 17 and that there is no existence of new-borns, this amount, a little over 360,000 is the whole reduced main foods-tuffs. Main foods-tuffs shortage is said to be twenty odd million koku this year in order to keep up the present basic amount of ration, and its rate of reduction does not even reach 1.5%.

(3)

ASSUMING that the death-rate is 17 and no new-borns: existence, the amount of main food-stuffs to be saved is still to be only 360,000 odd koku. But birth-prohibition, beyond the idea of birth-control, is impossible as a praction, beyond the idea of birth-control, is impossible as a practical means to face the problem. If the existence of new-borns is allowed, the distribution of main food-stuffs becomes necessary to that extent, and the rationed amount of main food-stuffs is forced to be less than 360,000 koku. If the birth-rate, which is about 29 per 1,000 persons, remains to last, namely if neither birth-rate is enforced nor birth encouraged, the number of new-borns will be 2,088,000 ($72,000,000 \times \frac{29}{1,000} = 2,088,000$).

Let us count the amount of main food-stuffs to be distributed to those new-borns. Those new-borns of 2,088,000 are not born all at once on Nov. 2, 1945, but gradually month after month, to reach that number on Oct. 31, 1946. As I have said of the dead, seen from the average viewpoint, it will do if six months' food is supplied. As the ration for an infant is 20 g (7.7 shaku), $7.7 \text{ shaku} \times \frac{365}{2} \times 2,088,000 = 293,416.2$ koku.

That is, the necessary amount of main-food-stuffs is 293,416.2 - 2 koku. Assuming that the death-rate is 17 and the birth-rate 29, the reduction will be 69,764.9 koku.

In spite of the increase of 864,000, the amount of rationing decreases. That seems most unlikely, and there seems something wrong with the account, but there is no mistake in the counting. That the amount of distribution differs according to ages, is apparently strange, but this kind of phenomenon actually exists. Suppose the case of the birth of twins whose mother dies. In that family, the number of the family increases but the amount of rationing of main-food-stuffs decreases. The death of the mother entails the reduction of 3000 g of rationing and the birth of the twins gains 220 g of rationing (110 g per infant), the balance being a reduction of 80 g.

To conclude, in the present state of the composition of population according to ages, although the death-rate is 17, the birth-rate 29 and the natural increase of population 864,000 the amount of rationing of main food-stuffs decreases, though its absolute amount is very small, granted that there is no change in the amount of rationing in accord with ages. Of course, this small reduced amount of main food-stuffs rationing is far from being enough for conquering the present food crisis.

(4)

IN the last place, let us see to what extent the amount of rationing of main food-stuffs decreases in case birth-control is enforced. The question is the degree of birth-control: during the 1st World War the birth-rate of France decreased down to 9.5 per 1,000 persons. This rate seems the lowest one civilized countries have ever experienced to have.

It seems unrealizable to make birth-rate go down from 29 to 9.5 at once, however strongly birth-control may be propagated. However, let us count with the birth-rate of 9.5 and the number of births is as follows.

$$7,200,000,000 \times \frac{9.5}{1,000} = 684,000.$$

When the same method of counting as before is taken for counting the amount of main food-stuffs distribution for 684,000 newborns, it comes to 9,610.1 koku. When the amount of main food-stuffs distribution to be saved by deaths is balanced, the amount will be 267,062 koku. In short, granted that the death-rate is 17 and the birth-rate 9.5, the amount of main food-stuffs to be saved is to be 260,000 odd koku.

The propagator of birth-control may protest by saying that our population will become extraordinarily if birth-control be neglected, but that is outside our present question. Our purpose is to point out statistically the ineffectiveness of birth-control for confronting the imminent crisis of food-stuffs. Neither have we taken up the problem of birth-control from another different point of view. People are sometimes apt to resort to birth-control for challenging the present critical circumstances of food, but the fact is far from their opinion as the result of our brief study has already revealed enough.

5. Estimated Population by Ages, Groups 1916-1938

Year	Total	Age Groups		
1916	53,510,100	19,514,900	29,432,300	4,562,900
17	54,090,400	19,687,000	29,814,700	4,588,700
18	54,636,600	19,819,300	30,215,100	4,602,300
19	55,133,300	19,952,100	30,580,300	4,601,000
20	55,963,053	20,416,202	30,949,690	4,597,161
21	56,687,600	20,814,300	31,324,000	4,549,300
22	57,449,300	21,122,600	31,812,100	4,514,500
23	58,207,300	21,401,500	32,319,900	4,485,900
24	58,937,400	21,616,800	32,792,300	4,528,400
25	59,736,822	21,924,045	33,223,373	4,589,404
26	60,718,600	23,306,800	33,785,600	4,626,100
27	61,677,500	22,634,100	34,389,100	4,654,300
28	62,629,700	22,963,000	34,918,200	4,748,500
29	63,563,900	23,272,500	35,508,900	4,782,400
30	64,450,005	23,579,265	36,084,780	4,785,960
31	65,371,100	23,939,400	36,628,200	4,803,400
32	66,284,600	24,334,300	37,092,400	4,857,900
33	67,318,400	24,844,800	37,522,000	4,951,600
34	68,272,300	25,316,300	37,905,900	5,050,100
35	69,254,148	25,545,167	38,553,411	5,155,570
36	70,270,200	25,864,400	39,115,700	5,290,200
37	71,208,200	26,070,300	39,733,500	5,404,300
38	72,062,300	26,176,000	40,365,900	5,520,400

Table I Crude and Standardized
Birth-, Death- and Natural Increase
Rate in Urban District

Year	Crude			Standardized		
	Birth rate	Death rate	Natural Increase rate	Birth rate	Death rate	Natural Increase rate
Actual number						
	o/oo	o/oo	o/oo	o/oo	o/oo	o/oo
1920	28.35	22.80	5.55	27.05	26.88	0.17
1925	28.28	18.63	9.65	26.62	21.54	5.08
1930	26.58	17.20	9.38	25.74	19.59	6.15
1935	25.53	15.29	10.24	25.83	17.63	8.20
Index number (1925=100.00)						
1920	100.25	122.38	57.51	101.62	124.79	3.35
1925	100.00	100.00	100.00	100.00	100.00	100.00
1930	93.99	92.32	97.20	96.69	90.95	121.06
1935	90.28	82.07	106.11	97.03	81.85	161.42

Table II Crude and Standardized
Birth-, Death- and Natural Increase
Rate in Rural Districts

Year	Crude			Standardized		
	Birth rate	Death rate	Natural Increase rate	Birth rate	Death rate	Natural Increase rate
Actual number						
	o/oo	o/oo	o/oo	o/oo	o/oo	o/oo
1920	37.25	24.33	12.92	37.36	23.61	13.75
1925	36.17	20.65	15.52	36.82	19.83	16.99
1930	34.41	19.66	14.75	36.26	18.88	17.38
1935	32.91	18.52	14.39	38.64	17.75	20.89
Index number (1925=100.00)						
1920	102.99	117.82	83.25	101.47	119.06	80.93
1925	100.00	100.00	100.00	100.00	100.00	100.00
1930	95.13	95.21	95.04	98.48	95.21	102.30
1935	90.99	89.69	92.72	104.94	89.51	122.95
Ratios to Urban District (=100.00):						
1920	131.39	106.71	232.79	138.11	89.83	8,088.24
1925	127.90	110.84	160.83	138.32	92.06	334.45
1930	129.46	114.30	157.25	140.89	96.38	282.60
1935	128.91	121.12	140.53	149.59	100.68	254.76

Table I (a) Number of cities, towns and villages by Population Class

Population Class	1947	1935	1930	1925	1920
Total	10,505	11,540	11,865	12,019	12,244
100,000 or over	52	34	32	21	16
50,000-100,000	87	54	65	51	31
40,000- 50,000	50	16	27	31	20
30,000- 40,000	61	44	38	36	40
20,000- 30,000	115	86	93	78	76
10,000- 20,000	705	466	426	392	374
5,000- 10,000	2,620	1,953	1,878	1,733	1,639
less than 5,000	6,815	8,887	9,306	9,677	10,043

Table I (b) Population of Cities, Towns and Villages by Population Class

Population Class	1947	1935	1930	1925	1920
Total	78,100,541	69,254,148	64,450,005	59,736,822	55,963,053
100,000 or over	16,789,014	17,518,069	11,481,288	8,741,237	6,753,598
50,000-100,000	6,147,710	3,685,020	4,402,415	3,444,916	2,105,318
40,000- 50,000	2,215,915	740,072	1,191,970	1,381,300	889,096
30,000- 40,000	2,128,329	1,488,704	1,293,320	1,249,460	1,407,095
20,000- 30,000	2,737,112	2,065,346	2,205,384	1,807,232	1,806,555
10,000- 20,000	9,392,755	6,254,515	5,718,084	5,229,161	5,074,460
5,000- 10,000	17,636,309	12,938,344	12,472,034	11,470,200	10,821,175
Less than 5,000	21,053,397	24,564,078	25,685,510	26,413,316	27,105,756

Table II Population by Industry, by Population Class

Population Class	Occupational Population*	Agriculture	Fishery	Mining	Manufacturing Industry
Total	45.95	47.71	1.92	1.07	19.84
100,000 or over	42.88	2.50	0.50	0.15	35.75
50,000-100,000	40.74	5.62	1.15	1.87	36.71
40,000- 50,000	39.81	5.43	0.67	1.26	36.43
30,000- 40,000	40.84	14.49	1.93	4.12	30.84
20,000- 30,000	41.03	23.83	2.51	4.67	27.50
10,000- 20,000	44.35	39.80	2.48	3.26	23.44
5,000- 10,000	46.42	56.82	3.43	1.23	16.44
less than 5,000	49.33	70.80	2.73	0.30	12.03

Population Class	Trade, Commerce	Transportation, Communication	Public Service, Liberal Profession	Domestic Service	Others
Total	16.56	3.19	6.77	2.71	0.24
100,000 or over	35.90	6.31	12.43	5.72	0.73
50,000-100,000	31.11	6.35	12.44	4.60	0.35
40,000- 50,000	32.65	5.16	12.01	6.00	0.39
30,000- 40,000	27.87	4.69	11.00	4.72	0.33
20,000- 30,000	23.90	4.53	8.70	4.02	0.34
10,000- 20,000	17.78	3.71	6.72	2.84	0.17
5,000- 10,000	12.31	2.48	5.18	1.99	0.12
less than 5,000	7.33	1.71	4.23	0.75	0.11

* The Percentage of the occupational population for the total population. The others are the percentages for the occupational population.

Table III Density by Population Classes, 1935

Population Classes	Area (sq. km.)	Population	Density (per sq. km.)
Total	380,335.16*	69,254.148	182
100,000 or over	2,729.31	17,518.069	6,418
50,000-100,000	1,529.55	3,685.020	2,409
40,000- 50,000	1,665.72	740.072	694
30,000- 40,000	2,507.84	1,488.704	594
20,000- 30,000	4,698.78	2,065.346	440
10,000- 20,000	41,761.65	6,254.515	150
5,000- 10,000	102,894.73	12,938.344	126
less than 5,000	223,147.58	24,564.078	110

* The area of Lakes, swamps, inlets and commons which do not belong to each city, town or village, are not included. The area of the whole Japan is 382,545.42 sq. km..

Table IV Age Composition by Population Classes

Population Classes	Ages						
	0 - 14			15 - 59			60 or more
	Total	0 - 5	6 - 14	Total	15-24	25-59	
1930							
Total	36.59	16.50	20.08	55.99	18.73	37.26	7.43
100,000 or over	30.79	14.37	16.42	64.51	25.08	39.43	4.70
50,000-100,000	34.04	15.76	18.28	60.94	22.73	38.21	5.02
40,000- 50,000	33.77	15.83	17.94	61.16	22.62	38.54	5.07
30,000- 40,000	34.66	15.98	18.68	59.60	21.41	38.19	5.74
20,000- 30,000	37.05	17.02	20.02	57.01	19.59	37.42	5.95
10,000- 20,000	38.00	17.11	20.89	55.28	18.85	36.43	6.71
5,000- 10,000	38.68	17.31	21.37	53.44	17.22	36.22	7.88
less than 5,000	38.47	17.07	21.40	52.2	15.52	36.70	9.31
1935							
Total	36.89	15.96	20.93	55.67	18.36	37.31	7.44
100,000 or over	32.03	14.26	17.77	63.26	23.98	39.28	4.72
50,000-100,000	34.61	14.77	19.82	59.64	21.94	37.70	5.75
40,000- 50,000	36.17	15.53	20.65	58.38	21.61	36.76	5.45
30,000- 40,000	36.34	15.54	20.80	57.44	20.03	37.42	6.22
20,000- 30,000	37.68	16.29	21.39	55.94	18.89	37.05	6.38
10,000- 20,000	38.45	16.63	21.82	54.51	18.07	36.44	7.04
5,000- 10,000	39.27	16.95	22.31	52.63	16.43	36.21	8.10
less than 5,000	39.03	16.67	22.36	51.35	14.66	36.69	9.62

* Percentage of age groups for the each total population

Table V Crude Birth-, Death- and Natural Increase Rate by Population Class

Population Class	1935	1930	1925
Birth-rate			
Total	31.63	32.35	34.92
100,000 or over	26.32	26.26	28.84
50,000-100,000	27.58	28.33	31.19
40,000- 50,000	28.55	29.01	31.33
30,000- 40,000	28.67	29.23	31.22
20,000- 30,000	30.42	30.65	33.04
10,000- 20,000	31.86	32.11	33.88
5,000- 10,000	34.37	34.46	36.47
less than 5,000	34.92	35.26	37.44
Death-rate			
Total	16.78	18.17	20.27
100,000 or over	14.18	15.74	18.54
50,000-100,000	16.62	16.57	18.96
40,000- 50,000	15.71	17.84	18.81
30,000- 40,000	16.70	17.27	19.74
20,000- 30,000	16.48	17.45	19.78
10,000- 20,000	16.60	17.67	19.34
5,000- 10,000	17.42	18.41	20.15
less than 5,000	18.43	19.64	21.38
Natural Increase Rate			
Total	14.86	14.18	14.65
100,000 or over	12.13	10.52	10.30
50,000-100,000	10.96	11.76	12.23
40,000- 50,000	12.85	11.18	12.52
30,000- 40,000	11.97	11.96	11.48
20,000- 30,000	13.94	13.20	13.26
10,000- 20,000	15.26	14.44	14.54
5,000- 10,000	16.95	16.04	16.32
less than 5,000	16.49	15.62	16.07

Table VI Standardized Birth-, Death- and Natural Increase Rate
by Population Class

Population Class	Birth-rate*		Death-rate		Natural Increase rate	
	1935	1930	1935	1930	1935	1930
Total	31.09	32.34	17.46	18.62	13.63	13.72
100,000 or over	22.56	22.96	16.63	18.38	5.93	4.58
50,000-100,000	24.49	25.00	18.84	18.69	5.65	6.31
40,000- 50,000	25.16	25.11	17.74	20.02	7.42	5.09
30,000- 40,000	26.15	26.57	18.35	18.91	7.80	7.66
20,000- 30,000	28.87	28.81	27.73	18.64	11.14	10.17
10,000- 20,000	31.27	31.62	17.35	18.37	13.92	13.25
5,000- 10,000	35.96	36.11	17.47	18.35	18.49	17.76
less than 5,000	38.16	38.55	17.72	18.79	20.44	19.76