[Emblem of the State of Israel]

State of Israel
Ministry of Defense

Coordination of Government Activities in the Territories
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11 Tishrei 5773
27 September 2012

To:
Gisha

Re: AAA 3300/11 Ministry of Defense v. Gisha "Food Consumption in the Gaza Strip – Red Lines" Presentation

1. According to the Supreme Court judgment in AAA 3300/11, **Ministry of Defense v. Gisha**, rendered September 5, 2012, we hereby provide you with the presentation entitled "Food Consumption in the Gaza Strip – Red Lines".

2. We hereby provide you both with the version presented also to the District Court (presentation dated January 1, 2008) and the version presented during the hearing before the Supreme Court (presentation dated January 27, 2008).

3. We stress that as noted by the State before both the District Court and the Supreme Court, the aforementioned presentations are drafts and were not used at any stage in time as a basis for implementing civilian policy toward the Gaza Strip.

Respectfully,

Guy Inbar, Major
COGAT Spokesperson

SLIDE 1

Ministry of Defense
Coordination of Government Activities in the Territories

Food Consumption in the Gaza Strip – Red Lines

1 January 2008

SLIDE 2

Goals of Analysis

- **As part of the policy formulated by the Security Cabinet on September 19, 2007, Israel will limit the entry of goods into the Gaza Strip.**
- **In order to allow for a basic fabric of life in the Gaza Strip, the deputy defense minister approved allowing 106 trucks carrying basic humanitarian products into the Gaza Strip, mostly food (all products are specified in the appendices). In addition, food in seed form was approved for entry via the aggregate conveyor belt located near the Karni crossing.**
- **This research examines the main food component.**
- **The goal of the analysis – to identify the point of intervention for prevention of malnutrition in the Gaza Strip.**
- **The basis for the analysis is a model formulated by the Ministry of Health (at this point, according to average Israeli consumption) and a model formulated by the Palestinian Ministry of Economy.**
- **The Ministry of Health is conducting work for calculating the minimal subsistence basket based on the Arab sector in Israel. The "minimum basket" allows nutrition that is sufficient for subsistence without the development of malnutrition.**

SLIDE 3

Main Working Assumptions

- **The research analyzes the situation according to the food that enters the Gaza Strip and does not take into account distribution/division inside the area.**
- **There is internal food production in the Gaza Strip (mostly vegetables and protein, detailed in appendices).**
- **The figures used in the consumption models were "converted" into supply over five days and translated, in some of the sections, into truckloads, taking into account packaging weight.**
- **Wheat, which is a major food component, was converted into flour according to a scale of 1,000 kilograms of wheat being the equivalent of 720 kilograms of flour.**

SLIDE 4

Working Assumption – Daily Humanitarian Portion Required to Enter Gaza Strip

Basic Products	Daily truck movement, according to 106
Basic food	
Flour and yeast	10
Rice	5
Agriculture (fruit, vegetables and agricultural inputs)	18
Powdered milk and baby formula	3
Dairy products	10
Meat/poultry/fish	10
Legumes	2
Oil	5
Sugar	10
Salt	4
Total basic food	**77**
Other Products	
Other food products	11
Agriculture - agricultural inputs	2
Medicine	3
Medical equipment	3
Hygiene products	5
Essential humanitarian infrastructure products	**5**
Total	**106**

***In addition, the aggregate conveyor belt at Karni Crossing transports wheat and animal feed (From Oct – Dec 2007, approximately 60 trucks of wheat per week – average of 12 per day (based on 5 business days)**

SLIDE 5

Food Consumption in the Gaza Strip According to Ministry of Health Index for Daily Food Portion (discounting internal production)

Age/Type of food	Average daily portion per person (in grams)	Required daily food for general population (in tons)	Required daily truckload supply (5 business days)
Flour	140	196	10
Rice	70	98	6
Potatoes	70	98	7
Vegetables	279	385	28
Fruit	479	662	48
Milk	521	720	42
Meat	232	321	31
Legumes/tahina	40	56	3
Oil	15	21	1
Sugar	40	55	3
Total	**1,886**	**2,612**	**178**

- **Food is brought in 5 days per week. Therefore, in calculating the number of truckloads, the daily required amount of food was multiplied by a factor of 7/5.**
- **The number of truckloads takes into consideration the transfer of two truckloads (40 tons) of powdered milk per day which are equivalent to 27 truckloads of fresh milk.**

SLIDE 6

General Daily Food Consumption in the Gaza Strip per Ministry of Health Scale (in tons)

Age/Type of food	Male/Female			Female			Male					Total for general population (minus 6-12 month age bracket)	Food additive for -12 month age bracket)	Total quantity required for general population
	2-3	4-6	7-10	11-24	24-50	51+	11-14	15-18	19-24	24-50	51+			
Grains	11.94	37.15	40.43	63.94	53.52	14.65	25.66	25.71	25.71	68.33	15.23	382.28	3.98	386.26
Vegetables	12.62	37.00	40.52	60.03	50.25	14.64	24.64	24.68	24.68	65.61	14.85	369.53	4.21	373.74
Fruit	16.99	58.80	67.42	102.65	85.92	23.84	43.69	45.02	45.02	119.68	25.80	636.86	6.33	643.19
Milk	39.49	70.18	68.53	140.88	78.61	26.18	51.40	26.34	46.34	82.13	22.13	672.22	13.16	685.38
Meat	14.09	39.83	62.61	60.93	51.00	15.57	24.08	23.38	23.38	62.15	14.95	371.98	4.70	376.67
Oil	0.00	1.18	1.81	0.00	3.39	0.56	0.82	2.22	1.85	7.87	1.06	20.75	0.00	20.75
Sugar	4.35	5.04	5.58	4.95	5.27	2.01	2.87	5.18	4.07	12.78	1.85	53.95	1.45	55.40

- **The figures are in tons per calendar day (consumption over seven days per week, unlike supply which is calculated based on five days per week).**
- **The portion of consumption is measured by the Health Ministry in Israel and provides for 2,000-2,500 calories per adult and 1,550 calories per child.**
- **The quantities in this table are average consumption according to Israeli standards and are not minimal subsistence portions.**
- **The Ministry of Health has been requested to calculate the minimal subsistence basket according to the Arab sector in Israel. The "minimal basket" allows for nutrition that is sufficient for subsistence without the development of malnutrition.**

SLIDE 7

Energy (calories) and Daily Food Portion (in grams) in the Gaza Strip According to Ministry of Health Scale – Broken Down by Age and Gender

Age/Type of Food	Male/Female			Female			Male					Average portion
	2-3	4-6	7-10	11-24	24-50	51+	11-14	15-18	19-24	24-50	51+	
Flour (0.67)	84.65	148.14	165.07	190.47	190.47	156.61	209.52	232.79	232.79	232.79	192.58	**93.1**
Rice (0.33)	41.70	72.97	81.31	93.81	93.81	77.13	103.19	114.66	114.66	114.66	94.86	**186.3**
Vegetables	133.45	220.20	246.89	266.91	266.91	233.55	300.27	333.64	333.64	333.64	280.25	**270.4**
Fruit	200.83	349.93	410.79	456.43	456.43	380.36	532.50	608.57	608.57	608.57	486.86	**465.3**
Milk	417.60	417.60	417.60	626.40	417.60	417.60	626.40	626.40	626.40	417.60	417.60	**495.8**
Meat	149.00	237.04	259.61	270.90	270.90	248.33	293.48	316.05	316.05	316.05	282.19	**272.5**
Oil	0.00	7.00	11.00	0.00	18.00	9.00	10.00	30.00	25.00	40.00	20.00	**15.0**
Sugar	46.00	0.00	34.00	22.00	28.00	32.00	35.00	70.00	55.00	65.00	35.00	**40.1**
Total grams per day	**1073.23**	**1452.88**	**1626.27**	**1926.92**	**1742.12**	**1554.58**	**2110.36**	**2332.11**	**2312.11**	**2128.31**	**1809.34**	**1838.6**
Total calories per day	**1300**	**1800**	**2000**	**2200**	**2200**	**1900**	**2500**	**3000**	**2900**	**2900**	**2300**	

SLIDE 8

The Gaza Strip – Self Produced Food

Type of food	% of local production in required intake	Daily local production (tons)	Equivalent in truckloads (5 days of supply)
Flour	0%	0	0
Rice	0%	0	0
Potatoes	100%	100	7
Vegetables	80%	308	21
Fruit*	10%	66	4
Milk	8%	60	6
Meat	47%	186	18
Legumes/tahini	0%	0	0
Oil	0%	0	0
Sugar	0%	0	0
Baby food	0%	0	0
Salt	0%	0	0
Total		**720**	**56**

***Fruit –**
The assumption is that approximately 10% of need is met by eating either fruit or vegetables that are grown in Gaza.

- **Fruit – the assumption is that 50% of need is met by eating vegetables.**
- **Food is brought in five days per week. Therefore, in calculating the number of truckloads, the daily required amount of food was multiplied by a factor of 7/5.**

SLIDE 9

Ministry of Health Model, Taking into Account Gaza Self-Production (in trucks)

Type of food	% Local production	Total food required for general population (tons)	Local production (tons)	Total food minus self-produced (tons)	Total trucks minus local production	Weight per truck (tons)
Flour	0%	196	0	196	10	27
Rice	0%	98	0	98	5.5	25
Potatoes	100%	98	100	0	0	20
Vegetables	80%	385	308	77	5	20
Fruit	10%	662	66	596	42	20
Milk	8%	720	60	660	35	15
Meat	49%	321	186	163	16	15
Legumes/Tahina	0%	56	0	56	3	25
Oil	0%	21	0	21	1	30
Sugar	0%	56	0	56	3	10
Baby food	0%	11	0	11	1.5	20
Salt	0%	57	0	57	4	20
Total		**2,624**	**720**	**1,934**	**126**	

- **Food is brought in five days per week. Therefore, in calculating the number of truckloads, the daily required amount of food was multiplied by a factor of 7/5.**
- **Ministry of Health figures include the weight of the packaging (1%-5% of the total weight)**
- **The number of truckloads according to the Ministry of Health model and the 106 model takes into consideration movement of 2 trucks (40 tons) of powdered milk per day which are equivalent to 27 truckloads of fresh milk.**

SLIDE 10

Consumption Model Compared to Working Assumption (in truckloads)

Basic Products	Daily truck movement , according to 106 + Karni conveyor belt
Basic food	
Flour and wheat through Karni conveyor belt	22
Rice	5
Agriculture (fruit, vegetables and agricultural inputs)	18
Dairy products	10
Powdered milk and baby formula	3
Meat/poultry/fish	10
Legumes	2
Oil	5
Sugar	10
Salt	4
Total basic food	**89**
Other food products	**11**

Type of food	Per Ministry of Health Model (minus local production)
Flour	10.0
Rice	5.5
Potatoes	0.0
Vegetables	5.0
Fruit	23.0
Milk	33.0
Baby Formula	1.5
Meat	15.0
Legumes/Tahini	3.0
Oil	1.0
Sugar	3.0
Salt	4.0
Total	**104.0**

- **Food is brought in five days a week. Therefore, in calculating the number of truckloads, the daily required amount of food was multiplied by a factor of 7/5.**
- **Ministry of Health figures include the weight of the packaging (1%-5% of the total weight).**
- **The number of truckloads according to the Ministry of Health model and the 106 model takes into consideration movement of 2 trucks (40 tons) of powdered milk per day which are equivalent to 27 truckloads of fresh milk.**

SLIDE 11

Basic Food Consumption in the Gaza Strip according to the Palestinian Ministry of Economy

Type of product	Daily consumption (tons)	Daily supply (tons)	Daily supply (truckloads)
Flour and wheat	**450**	630	**21**
Rice	**72**	101	**3**
Legumes	**23**	32	**1**
Sugar	**110**	154	**5**
Oil	**43**	60	**2**
Total basic food	**698**	**977**	**33**

- **Consumption figures are in tons per day**
- **"Daily supply" figures and truckload figures are based on supply over five days per week.**
- **The figures of the Palestinian Trade Ministry reflect market demand.**
- **The figures of the Palestinian Trade Ministry do not include specific reference to fruit, vegetables, meat and milk.**

SLIDE 12

Daily Supply – Models Compared to Working Assumptions (figures in truckloads)

	Number of Trucks		
Type of food	**Ministry of Health (after eliminating local production)**	**According to 106 + Karni conveyor belt**	**Palestinian Ministry of Economy**
Flour	10	22	21
Rice	5.5	5	3
Potatoes	0	0	No figures
Vegetables	5.0	3	No reference
Fruit	23	15	
Milk + Powdered Milk	33	12	No figures
Meat	15	10	
Legumes	3	2	1
Oil	1	5	2
Sugar	2.5	10	5
Baby formula	1.5	1	No reference
Salt	4	4	
Total	**104**	**89**	

- **Figures are in trucks per day of commercial transport (five days per week).**
- **Palestinian Trade Ministry figures reflect market demand.**

SLIDE 13

Additives in Wheat

Number	Added Vitamin/Mineral	Quantity	
1	Thiamine (Vitamin B1)	4.4	Milligram per Kilogram
2	Vitamin B2	2.6	Milligram per Kilogram
3	Niacin	35	Milligram per Kilogram
4	Folic Acid	0.4	Milligram per Kilogram
5	Iron	25	Milligram per Kilogram
6	Folato	1	Milligram per Kilogram
7	Vitamin B6	2.5	Milligram per Kilogram
8	Zinc	15	Milligram per Kilogram
9	Vitamin A	1	Milligram per Kilogram
10	Vitamin B3	0.02	Milligram per Kilogram

SLIDE 14

Summary and Conclusions

- **According to the model supplied by the Israeli Ministry of Health, there is a need for a daily supply of 104 food trucks (5 days a week).**
- **The model takes into account an exaggerated consumption of milk (3 times the known consumption in the Gaza Strip). Thus, on decreasing the milk component, the working assumption of 106 trucks (+ Karni conveyor belt) which includes about 90 truckloads of basic food, certainly meets nutritional needs in the Gaza Strip.**
- **The Ministry of Health Model assumes lower consumption of flour than what is known to be in effect.**
- **The Ministry of Health model is based on the average Israeli consumption, rather than a minimalist basket according to consumption habits in the Arab sector (the Ministry of Health is currently analyzing this).**
- **Following receipt of the new basket, it will be possible to define a red line as a warning sign.**
- **The Ministry of Health estimates that the new basket will be 20% lower than the current basket.**

SLIDE 15

APPENDICES

SLIDE 16

Breakdown of Palestinian Population in the Gaza Strip

Breakdown of Palestinian Population in the Gaza Strip according to Age and Gender (COGAT figures)

	Gaza		Total Gaza
Age	**Male**	**Female**	
0-1	48,132	45,906	**94,038**
2-3	48,332	46,244	**94,576**
4-7	86,568	81,480	**168,048**
8-15	167,811	160,414	**328,225**
16-24	147,965	142,848	**290,813**
25-50	196,660	188,253	**384,913**
51+	52,994	62,687	**115,681**
Total	**748,462**	**727,832**	**1,476,294**

- **Puzzle figures – derived on November 11, 2007**

SLIDE 17

Working Estimates for Formulation of Ministry of Health Model

General

- **The amounts in this table are based on average consumption by Israeli standards and are not portions for minimal subsistence.**
- The weight figures in the Ministry of Health model pertain to a calendar day (consumption over seven days a week, unlike supply which is calculated on the basis of five days per week). In the comparison slide, these figures include the percentage of packaging.
- In the slide that compares the Ministry of Health model to the 106 list, the Ministry of Health figures include the weight of the packaging (1%-5% of the weight).
- The truckloads figures in all models are per day of transport of goods (five days per week). Therefore, the amount of food required by the population per day was multiplied by a factor of 5/7.
- Seventy-two percent of the weight of wheat is used for producing flour. Calculations are based on 75%, as cooked wheat is also used for food (no exact figures).
- The Ministry of Health model, on which the research work is based, includes legumes in the group of meat products as it is a protein substitute. We emphasize that the Ministry of Health was asked to isolate this product in the "minimal" model, in consideration of the fact that legumes can also serve as a substitute for grains.

SLIDE 18

Working Estimates for Formulation of Ministry of Health Model – Continued

Gaza Self-Produced Food

Fruit and Vegetables

- The Gaza Strip produces approximately 1,000 tons of vegetables per year (gross yearly average, including damaged produce).
- The percentage of self-produced fruit in the Gaza Strip is less than 15%, but in effect, nutritionally, fruits can be substituted by vegetables. Since we do not have exact figures on the types of vegetables and the rate of fruit to vegetable conversion, the rate of self-produced fruit was calculated as 50%. This estimate requires further examination.
- Most of the vegetables in the food basket are produced inside the Gaza Strip, with the exception of carrot, onion, garlic and more which account for 20% and must be brought in from Israel.

Milk and Dairy

- Self-produced milk is calculated based on 4,000 dairy cows in the Gaza Strip which produce 15 liters of milk per day.
- Production from powdered milk is calculated based on a conversion rate of 100 grams of powder per 1 liter of milk.
- According to the conversion rate, 2 truckloads of powdered milk (40 tons) are equivalent to 27 truckloads of fresh milk.

SLIDE 19

Working Estimates for Formulation of Ministry of Health Model – Continued

Gaza Self-Produced Food – continued

Meat and Substitutes

- Poultry – approximately 9 million meat producing chickens are raised per year in the Gaza Strip - approximately 13,500 tons (37 tons per day).
- Eggs – There are approximately 1 million egg producing chickens in the Gaza Strip. The calculation is 0.8 eggs per chicken, per day. One meat portion is equivalent to 1.5 eggs.
- The rate of self-produced of meat is calculated based on the production of 13,500 tons of chicken meat and 292 million eggs per year.

SLIDE 1

Ministry of Defense
Coordination of Government Activities in the Territories

Food Consumption in the Gaza Strip – Red Lines

27 January 2008

SLIDE 2

Background

- **The security situation in the Gaza Strip and, on the other hand, the interest in preventing a humanitarian crisis have created a need for a solution to the issue of bringing essential goods into the Gaza Strip.**
- **The issue became more pressing following the Security Cabinet decision of September 19, 2007, according to which Israel would limit the entry of goods into the Gaza Strip.**
- **In order to allow for a basic fabric of life in the Gaza Strip, the deputy defense minister approved allowing 106 trucks carrying basic humanitarian products into the Gaza Strip, including 77 basic food products. In addition, food in grain form was approved for entry via the aggregate conveyor belt located near the Karni crossing.**

In order to review the composition of food required by the population and in order to validate the "working assumption" ("106"), work was undertaken in cooperation with Ministry of Health officials in order to analyze the food basket required by the population and, as a derivative, the scope of food that enters.

Main Working Assumptions

- **The work that was undertaken analyzed the situation in terms of the food that enters the Gaza Strip and did not take into account distribution/division inside the area.**
- **There is internal food production in the Gaza Strip (vegetable and chicken farming), which was taken into account as a component of the food basket and needs to be addressed in terms of inputs.**
- **The figures used in the consumption models were "converted" into supply over five days and translated, in some of the sections, into truckloads, taking into account packaging weight.**

SLIDE 3

Working Assumption – Daily Humanitarian Portion Required to Enter Gaza Strip

Basic Products	Daily truck movement, according to 106
Basic food	
Flour and yeast	10
Rice	5
Agriculture (fruit, vegetables and agricultural inputs)	18
Powdered milk and baby formula	3
Dairy products	10
Meat/poultry/fish	10
Legumes	2
Oil	5
Sugar	10
Salt	4
Total basic food	**77**
Other Products	
Other food products	11
Agriculture - agricultural inputs	2
Medicine	3
Medical equipment	3
Hygiene products	5
Essential humanitarian infrastructure products	**5**
Total	**106**

- **In addition, the aggregate conveyor belt at Karni Crossing transports wheat and animal feed, In the period – November 2007 to January 2008:**

Wheat – Approximately 60 trucks per week – average of 12 per day (based on 5 business days)
Grain – Approximately 65 trucks per week – average of 13 trucks per day (based on 5 business days)

SLIDE 4

Energy (Calories) and Daily Food Portion (in grams) in the Gaza Strip According to Ministry of Health Index – Broken Down by Age and Gender

	Male/Female			Female			Male				
	2-3	4-6	7-10	11-24	24-50	51+	11-14	15-18	19-24	24-50	51+
Flour	95	166	185	213	213	175	235	261	261	261	216
Rice	32	55	62	71	71	58	78	87	87	87	72
Vegetables	133	220	247	267	267	234	300	334	334	334	280
Fruit	201	350	411	456	456	380	533	609	609	609	487
Milk	418	418	418	626	418	418	626	626	626	418	418
Meat	143	228	249	260	260	238	282	303	303	303	271
Legumes	18	28	31	33	33	30	35	38	38	38	34
Oil	0	7	11	0	18	9	10	30	25	40	20
Sugar	46	0	34	22	28	32	35	70	55	65	35
Total	**1,085**	**1,472**	**1,647**	**1,949**	**1,764**	**1,574**	**2,134**	**2,357**	**2,337**	**2,154**	**1,832**
Total calories per day	**1,300**	**1,800**	**2,000**	**2,200**	**2,200**	**1,900**	**2,500**	**3,000**	**2,900**	**2,900**	**2,300**

Powdered baby formula – 10.2 tons required per day for general population.

Average daily food portions by group:

Gender	Age Group	Component in calibrated portion according to age group (grams)	Component in calibrated portion according to population (calories)
Children	**Up to 10**	**1,448**	**1,758**
Women	**11 +**	**1,831**	**2,162**
Men	**11 +**	**2,181**	**2,784**
General population		**1,836**	**2,279**

Caloric value per food portion in the Gaza Strip according to international sources (external communications figures):

WFP - 2,100

UNRWA - 1,890

SLIDE 5

Food Consumption in the Gaza Strip According to Ministry of Health Index for Daily Food Portion (discounting internal production)

Age/Type of food	Average daily portion per person (in grams)	Required daily food for general population (in tons)	Required daily truckload supply (5 business days)
Flour/wheat	207	289.7	15.6
Rice	69	96.6	5.5
Vegetables	267	373.74	26.9
Fruit	461	643.19	46.4
Milk + powder	486	685.38	29.7
Meat	258	361.6	35.4
Legumes	32	45.2	2.6
Oil	15	20.75	1.0
Sugar	39	55.40	2.6
	1,836	**2,571.5**	**165.6**

- **The table does not include baby formula (approx. 0.7 trucks per day) and salt (approx. 4 trucks per day)**
- **Food is brought in 5 days per week. Therefore, in calculating the number of truckloads, the daily required amount of food was multiplied by a factor of 7/5.**
- **The total amount of food takes into consideration "sampling" by toddlers under the age of 2 (adds 34 tons per day to the general population).**
- **Milk - The number of truckloads takes into consideration transfer of 3 trucks of powdered milk per day which are equivalent to 40 truckloads of fresh milk.**

SLIDE 6

The Gaza Strip – Self Produced Food

Type of food	% of local production in required intake	Daily local production (tons)	Equivalent in truckloads (5 days of supply)
Vegetables	80%	299	21.6
Fruit	50%	322	23.2
Milk	8%	60	5.6
Meat	47%	186	18.2
Total		**867**	**68.6**

- **Food enters five days per week. Therefore, in calculating the number of truckloads, the amount of food required per day was multiplied by a factor of 7/5.**

Fruits and Vegetables

- **Most of the vegetables in the food basket are produced inside the Gaza Strip, with the exception of watermelon, melon, carrot, onion, garlic and others which account for 20% and must be brought in from Israel.**
- **According to the projection of the Gaza Agricultural Coordinator – the amount of vegetables produced in the Gaza Strip is in decline in view of the absence of inputs and lowered expectations for the development of agricultural marketing to Israel (production is expected to drop from 1,000 tons per day to 500 tons within a few months). This means that in a few months, only 30% of fruit consumption will be met.**

Milk and Dairy Products

- **Milk self-production is calculated based on 4,000 dairy cows in the Gaza Strip which produce 15 liters of milk per day.**
- **Production from powdered milk is calculated based on a conversion rate of 100 grams of powder per 1 liter of milk.**
- **According to the conversion rate, 2 truckloads of powdered milk (40 tons) are equivalent to 27 truckloads of fresh milk.**

Meat

- **Poultry – approximately 9 million meat producing chickens are raised per year in the Gaza Strip - approximately 13,500 tons (37 tons per day).**
- **Eggs – There are approximately 1 million egg producing chickens in the Gaza Strip. The calculation is 0.8 eggs per chicken, per day. One meat portion is equivalent to 1.5 eggs.**
- **Self-production of meat producing chickens is in decline due to difficulties in bringing in eggs for reproduction.**

SLIDE 7

Ministry of Health Model Taking into Account Gaza Self Production, Including Baby Formula and Salt (in trucks)

Age/Type of food	Required truck supply (5 business days)	Self production (in truckloads, based on 5 days of supply)	Truckload supply per day, self deducted (5 business days)
Wheat/flour	15.6		15.6
Rice	5.5		5.5
Vegetables	26.9	21.6	5.3
Fruit	46.4	23.2	23.2
Milk + 3 powder	29.7	5.6	24.1
Meat	35.4	18.2	17.2
Legumes	2.6		2.6
Oil	1.0		1.0
Sugar	2.6		2.6
Baby formula	0.7		0.7
Salt	4.0		4.0
Total			**101.8**

Weight per truck (tons)
35
25
20
20
15
15
25
30
20
20
20

- **Food enters five days per week. Therefore, in calculating the number of truckloads, the amount of food required per day was multiplied by a factor of 7/5**
- **Ministry of Health figures include the weight of the packaging (1%-5% of the weight).**
- **The number of trucks according to the Ministry of Health model and the 106 model take into account movement of 4 trucks of powdered milk per day which are equivalent to 54 trucks of fresh milk.**

SLIDE 8

Ministry of Health Consumption Model Compared to Working Assumption (in trucks)

Basic products	Movement of trucks carrying basic food based on 77 + 12 Karni	Ministry of Health Model	Ministry of Health Model adjusted to culture and experience
Basic food			
Flour + wheat via Karni conveyor belt	**22**	**15.6**	**22**
Rice	**5**	**5.5**	**5.5**
Agriculture (fruit, vegetables, without agricultural inputs)	**18**	**28.5**	**18**
Dairy products	**10**	**21.1**	**12**
Powdered milk and baby formula	**3**	**3.7**	**3.7**
Meat/poultry/fish	**10**	**17.2**	**14**
Legumes	**2**	**2.6**	**2.6**
Oil	**5**	**1**	**2**
Sugar	**10**	**2.6**	**5**
Salt	**4**	**4**	**4**
Total basic food	**89**	**101.8**	**88.8**

Only 77 of the 106 are basic food products. There are 29 additional truckloads of different types (medicine, medical equipment, hygiene products, agricultural inputs, essential humanitarian infrastructure products and other food products)

SLIDE 9

Conclusion and Recommendations

- **There is a need for ongoing food supply in accordance with the 106 model over time in order to avoid a situation of malnutrition – emphasis on children.**
- **The Ministry of Health model appears correct and leaves a "safety margin". The model meets the caloric model formulated by the World Health Organization (2,100 calories per person per day).**
- **A "minimum bar" for meat is required (calves – the recommendation is 300 per week) as well as for the quantity of agricultural inputs and eggs for reproduction in order to enable the continuation of internal food production which is an integral part of Gaza's food economy.**
- **Action is required vis-à-vis the international community and the Palestinian Ministry of Health for provision of nutritional supplements (only some of the flour in the Gaza Strip is enriched), as well as education for proper nutrition.**

The stability of the humanitarian effort is critical to prevent the development of malnutrition.

SLIDE 10

APPENDICES

SLIDE 11

General Breakdown – "106" and Conveyor Belt near Karni

Basic Products	Daily truck movement per 106
Basic food	
Flour and yeast	10
Rice	5
Agriculture (fruit, vegetables and agricultural inputs)	18
Powdered milk and baby formula	3
Dairy products	10
Meat/Poultry/Fish	10
Legumes	2
Oil	5
Sugar	10
Salt	4
Total basic food	**77**
Additional products	
Additional food products	11
Agriculture - agricultural inputs	2
Medicine	3
Medical equipment	3
Hygiene products	5
Essential humanitarian infrastructure products	5
Total	**106**
Karni conveyor belt - wheat	12
Karni conveyor belt - grain	13
Total	**131**

- **In addition, the aggregate conveyor belt at Karni Crossing transports wheat and animal feed,**
  In the period – November 2007 to January 2008:

  Wheat – Approximately 60 trucks per week – average of 12 per day (based on 5 business days)
  Grain – Approximately 65 trucks per week – average of 13 trucks per day (based on 5 business days)

SLIDE 12

Nutritional Additives in Wheat

Number	Added Vitamin/Mineral	Quantity	
1	Thiamine (Vitamin B1)	4.4	Milligram per Kilogram
2	Vitamin B2	2.6	Milligram per Kilogram
3	Niacin	35	Milligram per Kilogram
4	Folic Acid	0.4	Milligram per Kilogram
5	Iron	25	Milligram per Kilogram
6	Folato	1	Milligram per Kilogram
7	Vitamin B6	2.5	Milligram per Kilogram
8	Zinc	15	Milligram per Kilogram
9	Vitamin A	1	Milligram per Kilogram
10	Vitamin B3	0.02	Milligram per Kilogram

SLIDE 13

Breakdown of Palestinian Population in the Gaza Strip

Breakdown of Palestinian Population in the Gaza Strip according to Age and Gender (COGAT figures)

	Gaza		Total Gaza
Age	**Male**	**Female**	
0-1	48,132	45,906	**94,038**
2-3	48,332	46,244	**94,576**
4-7	86,568	81,480	**168,048**
8-15	167,811	160,414	**328,225**
16-24	147,965	142,848	**290,813**
25-50	196,660	188,253	**384,913**
51+	52,994	62,687	**115,681**
Total	**748,462**	**727,832**	**1,476,294**

- **Puzzle figures – derived on November 11, 2007**

SLIDE 14

Working Estimates for Formulation of Ministry of Health Model

General

- **The weight figures in the Ministry of Health model pertain to a calendar day (consumption over seven days a week, unlike supply which is calculated on the basis of five days per week). In the comparison slide, these figures include the percentage of packaging.**
- **In the slide that compares the Ministry of Health model to the 106 list, the Ministry of Health figures include the weight of the packaging (1%-5% of the weight).**
- **The truckload figures in all models are per day of transport of goods (five days per week). Therefore, the amount of food required by the population per day was multiplied by a factor of 5/7.**
- **Seventy-two percent of the weight of wheat is used for producing flour. Calculations are based on 75%, as cooked wheat is also used for food (no exact figures).**

Gaza Self Produced Food

Fruit and Vegetables

- **The Gaza Strip produces approximately 1,000 tons of vegetables per year (gross yearly average, including damaged produce).**
- **The percentage of self produced fruit in the Gaza Strip is less than 15%, but in effect, nutritionally, fruits can be substituted by vegetables. Since we do not have exact figures on the types of vegetables and the rate of fruit to vegetable conversion, the rate of self produced fruit was calculated as 50%. This estimate requires further examination.**
- **Most of the vegetables in the food basket are produced inside the Gaza Strip, with the exception of carrot, onion, garlic and more which account for 20% and must be brought in from Israel.**

SLIDE 15

Working Estimates for Formulation of Ministry of Health Model – Continued

Gaza Self Produced Food – continued

Milk and Dairy

- **Self-produced milk is calculated based on 4,000 dairy cows in the Gaza Strip which produce 15 liters of milk per day.**
- **Production from powdered milk is calculated based on a conversion rate of 100 grams of powder per 1 liter of milk.**
- **According to the conversion rate, 2 truckloads of powdered milk (40 tons) are equivalent to 27 truckloads of fresh milk.**

Meat and Substitutes

- **Poultry – approximately 9 million meat producing chickens are raised per year in the Gaza Strip - approximately 13,500 tons (37 tons per day).**
- **Eggs – There are approximately 1 million egg producing chickens in the Gaza Strip. The calculation is 0.8 eggs per chicken, per day. One meat portion is equivalent to 1.5 eggs.**
- **The rate of self-produced of meat is calculated based on the production of 13,500 tons of chicken meat and 292 million eggs per year.**