#### FACSIMILE TRANSMISSION

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No. of Pages 5
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	वैन्त्र पुत्र पार पर रा	<b>ชาทิ</b>	
	ม.เทคโนโลจีสุรเ	<i>นาร</i> ั	
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MESSAGE

### Review of the Economic Situation

#### 1. Thailand: Past Development Outcome

During the past 30 years, there have been seven Development Plans providing guidelines for Thailand's development, and the current Seventh National Plan (1992-1996) will end by September 30, 1996. According to mid-plan review of the Seventh Plan, the Thai economy achieved an average growth rate of about 8.3per cent, consistent with the plan's target, while people's per capita income rose to 70,000 bath, or about US\$ 2,800, in 1995. Proportion of the poor per the total population dropped from 26.3 to 13.7 percent in 1986 and 1992 respectively.

Despite remarkable success in economic development, Thailand has faced other emergent problems in terms of social and environmental degradation, lessening the quality of life of the people. These problems are, namely:

- 1) Income disparities
- 2) Deterioration of natural resources and environment
- 3) Society has become more complex and materialistic
- 4) High investment-saving gap and reliance on foreign technology and capital goods.

# 2. Toward Development Guidelines in the Eighth National Plan (1997-2001)

To mobilize preliminary ideas endations toward the national development guidelines of the Eighth Plan, so concerned were invited to participate and express their points of view. Considering the problems and their causes, the participants decidedly agree that the national development paradigm should be shifted toward emphasizing "human development" as the center or main objective of national

development. Economic development, on the other hand, should be considered as a means, not an end, to achieve this objective in national development.

#### 3. Thai Economy in the First Half of 1996

The Thai economy showed signs of slowing down due to weaker investment, industrial production and especially in export. Concerns in economic stability which was caused by the high rate of inflation in the first quarter have ceased because inflation rate in the second quarter declined to 6.2 percent, resulting in the average index during first six months increased by 6.8 percent. The current account deficit remains large, 126,300 million baht during the first four months an increase of 43.3 percent from 88,321 million baht in the same period last year.

- 3.1 Factors contributing to the economic slowdown
- (1) Private investment. Private investment index slowed down as construction sector and investment in machinery weakened. The average index during the first four months reduced 8.9 percent, compared to the 14.4 percent increase during the same period last year. Factors contributing to the slow down of private investment were high interest rate, limited availability of loan from commercial banks and the slow down of real estate development projects.
- (2) Industrial production. Industrial production index during the first four months of 1996 increased by 7.6 percent, compared to 14.7 percent in the same period last year. The slowing down in production was evident in the food and beverage sector, automobile products and construction production sectors.
- (3) Exports. Exports in the first five months registered 580,100 million baht, showing the growth rate of 7.7 percent. The export growth was much smaller than the 26.8 percent growth in the same period in 1995. The slowdown was seen in agricultural export which reduced 1.5 percent, compared to the growth rate of 32.1 percent in the same period last year. Lists of exports which experienced a reduction in value were

rubber and frozen shrimp. Exports which continued to expand were industrial and agroindustrial products.

The assessment of economic condition in the first half of 1996 suggests that the current account deficit in Thailand is still the main concern which evidently needs further attention.

#### 4. The Prospect of the Thai Economy in 1996

The Thai economy has slightly slowed down as previously expected and is not likely to grow more than 8.0 percent in 1996. However, the higher-than-expected inflation in the first half of the year may result in an inflation for the whole year of at least 5.5 percent, higher than the previous forecast of 5.2 percent. The current account is forecast to be 8.0 percent of GDP in 1996, reducing from 8.2 percent of GDP in 1995.

The inflation which reached 7.4 percent in the first quarter of 1996 continued to decline. This is due to several factors such as the decrease in consumption and the low price of agricultural products.

The current account deficit: Due to weaker in export, investment and consumption, which will cause a decrease in import especially of capital, intermediate goods and raw-materials, the import in 1996 is expected to reach 1,985,000 million baht, an increase of 13.1 percent compared to 30.5 percent last year. The trade deficit should reach 415,000 million baht, while the surplus in services expected to account of 45,000 million baht results in a current account of 370,000 million baht or the equivalent of 8.0 percent of the GDP in 1996.

Table 1: Thailand Key Economic Indicators

	1991	1992	1993	1994p	1995e	1996e
1. Real Economic Growth (%)	8.5	8.1	8.3	8.7	8.6	8.0
1.1 Agriculture	6.5	6.0	-1.9	5.5	3.0	3.6
1.2 Manufacturing	11.7	11.3	11.1	9.3	11.0	9.3
1.3 Construction	13.6	4.7	9.5	13.8	10.7	10.0
1.4 Services and Others	6.6	7.3	9.1	8.6	8.2	7.9
2. Gross Domestic Product (Bil. Baht)	2,507	2,827	3,164	3,601	4,120	4,651
3. Per Capita Income (Baht)	44,314	49,342	54,542	61,332	69,351	77,501
4. Real Expenditure (%)					1	
4.1 Consumption - Private	6.6	7.8	8.7	8.2	7.9	6.8
- Public	6.2	6.4	5.1	7.6	8.2	1.5
4.2 Investment - Private	10.6	1.1	10.6	8.5	10.3	8.6
- Public	26.8	26.5	4.5	22.9	16.0	17.0
5. Inflation (%)	5.7	4.1	3.3	5.1	5.8	2.5
6. International Trade						f
6.1 Exports (Bil. Baht)	720.5	815.4	921.4	1,118.0	1,381.6	1,570.0
Growth Rate (%)	23.5	13.2	13.0	21.3	23.6	13.6
6.2 Imports (Bil. Baht)	967.8	1,020.6	1,143.1	1,344.7	1,755.4	1,985.0
Growth Rate (%)	15.4	5.5	12.0	17.6	30.5	13.1
6.3 Trade Balance (Bil. Baht)	-247.3	-205.2	-221.7	-226.7	-373.8	-415.0
As % of GDP	-9.9	-7.3	-7.0	-6.3	-9.1	-8.9
6.4 Current Account Balance (Bil. Baht)	-193.6	-159.9	-161.2	-203.1	-337.6	-370.0
As % of GDP	-7.7	-5.7	-5.1	-5.6	-8.2	-8.0
7. Tourism*						
7.1 Number of Tourists (Millions of Person)	5.09	5.14	5.8	6.2	7.0	7.6
7.2 Revenue (Bil. Baht)	100.0	123.1	127.8	145.2	173.8	199.8
8. Fiscal Balance (Fiscal Year)	123.3	75.8	64.4	72.0	117.5	91.5
8.1 Revenue (Bil. Baht)	465.0	497.7	558.9	654.4	760.8	860.0
8.2 Expenditure (Bil. Baht)	341.7	421.9	494.5	582.4	643.3	768.5

Note: p = preliminary, e = estimate

Source: National Economic and Social Development Board

31-Jul-96

<sup>\*</sup> Tourism Authority of Thailand

Date sent:

Mon, 30 Sep 1996 18:08:37 -0400 (EDT)

From:

Doug Goff <dgoff@uoguelph.ca>
Food technology course at SUT

Subject: To:

eagle@tuns.ca

Copies to:

"Dr. Suwayd Ningsanond" <suwayd@ccs.sut.ac.th>

Dr. Robert F. Eagle

Director, Research Services

Technical University of Nova Scotia

Hi, Rob. It was good to meet you last week at Waterloo at the PRC of the SUT-CUTC. I haven't had much time to put together my ideas for the proposed food technology conference at SUT next October, but I have the following outline from a course "Principles of Food Science" that we have offered here.

Course Content:
I. Introduction
II. Food Chemist

II. Food Chemistry

□ Proteins

Carbohydrates

Dwater

Other Food Components

III. Food Structure and Texture

IV. Food Microbiology and Safety

☐Microbiological Hazards

OUnintentional Food Additives

V. Food Preservation and Processing

Deteriorative Agents and their Control

OHigh Temperature Processing (Pasteurization, Canning)

□Low Temperature Processing (Refrigeration, Freezing) and Distribution

OMoisture Control, Evaporation and Dehydration

Drood Additives

□Fermentations

□Packaging

VI. Food Commodity Groups

OFruits and Vegetables

DLivestock Products

OCereal Grain Products

□Oilseeds

□Dairy Foods

☐Technology of Brewing

We have focussed it differently for different groups in the past. For exple, we could take the more "science" approach, spending about a day to a day and a half on each of food chemistry, food microbiology, and food processing, or we could take the more "technology" approach, using food preservation/processing and safety (from food-borne diseases) as the prime focus, with microbiology and chemistry being added as needed. The commodities above are examples covering the major North American food groups. Obviously, this would be modifid as appropriate, with help from SUT staff. I am not a microbiologist, food processing and chemistry (especially dairy products) are my areas of interest, so I would need microbiology input also from the SUT staff.

The questions to raise are these:

- 1) Who is the most appropriate target audience to serve the biggest need, ie., job function and educational background?
- 2) If food preservation/safety is the main focus, what emphasis should be given to it?
- 3) What else is needed that is not covered above?
- I would also be interested in putting together a course on dairy

processing, if the demand or interest warranted it, as this is one of my main areas of research and external activity here.

Such a course could include the following:

- I. Milk Synthesis and Production
- II. Dairy Chemistry (milk proteins, lipids, lactose)
  III. Unit Operations in Dairy Processing
- □- Separation
- □- Pasteurization
- □- Homogenization
- IV. Manufacture of dairy commodities
- G- Frozen Dessert Processing
- O- Concentated and dried dairy products
- □- Butter
- □- Fermented Dairy Products
- Ingredients from Milk Products
- I have copied this message to Suwayd at SUT. I suspect you will meet him next week, and you can update him on the discussions we have had thus far.
- I hope you have a good trip to Thailand.



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31-Jul-96

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ลัญญารับรองการยืมเงินงานแสดงเกษตรและอุตสาหกรรม แห่งประเทศ พ.ศ. 2537			เลขที่			
ยั้นค่อ	×	žus	วันครบกำหนด			
	าแหน่ง					
ความประสงค์ขอยืมเงินจาก	<u>สังกัก</u> เนื่อใช้จ่ายใน	รายการคั้ง	ท่อไปนี้			
ทัวอักษร )	รวมเงิน (บาท)					
ข้าหเจ้าสัญญาว่าจะปฏิบัติตามระเบียบการ ระเทศไทย พ.ศ. 2537 ทุกประการ และจะนำใบ งไปภายใน 15 วัน นับแต่วันที่ได้รับเงินยืมนี้ถ้าข้าห ข้าหเจ้าสังกักอยู่ หักเงินเกือน ค่าจ้าง บำเหน็จ บ่ บ้านวนเงินที่ยืมไปจากคณะอนุกรรมการฝ่ายการเงินค	เานาณ หรือเงินอื่นใ	เก ข้าพเจ้า ใกอันจะนึงไ	ยินยอมให้ ได้รับ ส่งช	หน่วยงาน คใช้		
เอ็มเงิน (	)	วันที่				
เสนอ ได้ตรวจลอบรายการยืมแล้ว เห็นสมควรอนุมัติให้ยืม จำนวนบาทลตางค์ (ตัวอักษร_	จำนวน		ข้างต้นได้ บาท	ลทางค์		
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ผู้กรวจ	ผู้อนุมัติ					
วันที่ ใ						
ได้รับเงินจำนวนบาทส (ตัวอักษร	เทางค์ ผู้รับเงิน () ทำแหน่ง					
) 57t	บการล่งใช้คืนเจ็น			-		
ครั้งที่ วัน เคือน ปี <u>รายการส่งใช้</u> เงินสค/ใบสำคัญ จำนวนเงิก เงินจายอื่น	คงค้าง น	ผู้ก่งใช้	<u>ผู้รับ</u>	ใบรับเลบที่ 		