

6.2 Results of Survey on Socio-Economic Environment

RESULT OF SURVEY ON SOCIO-ECONOMIC ENVIRONMENT

(HEARING SURVEY ON PAPs IN NOV. 1999)

Intention on resettlement

	Huyện Bình Minh			Thành phố Cần Thơ		Huyện Châu Thành			Cộng	Huyện Bình Minh	Thành phố Cần Thơ	Huyện Châu Thành
	Xã Thuận An	Xã Đông Bình	Xã Mỹ Hòa	Phường Hưng Phú	Xã Hưng Thành	Xã Đông Thành	Thị trấn Cái Răng	Xã Tân P. Thành				
	VL1	VL2	VL3	CT1	CT2	CT3	CT4	CT5				
1. Resettlement right near the existing dwelling	6	3	0	16	13	14	4	2	58	9	29	20
2. Resettlement somewhere far from the existing dw	4	0	2	13	9	4	4	0	36	6	22	8
2. Moving to the Resettlement Site	86	48	14	18	4	11	17	23	221	148	22	51
4. No clear intention	0	1	0	1	2	1	0	0	5	1	3	1
Total	96	52	16	48	28	30	25	25	320	164	76	80

Opinion on the desirable area of the dwelling lot to be allocated in the Resettlement Site

	Huyện Bình Minh			Thành phố Cần Thơ		Huyện Châu Thành			Cộng	Huyện Bình Minh	Thành phố Cần Thơ	Huyện Châu Thành
	Xã Thuận An	Xã Đông Bình	Xã Mỹ Hòa	Phường Hưng Phú	Xã Hưng Thành	Xã Đông Thành	Thị trấn Cái Răng	Xã Tân P. Thành				
	VL1	VL2	VL3	CT1	CT2	CT3	CT4	CT5				
1. About 40 m2	1	1	0	3	0	0	3	0	8	2	3	3
2. About 41 - 60 m2	5	4	0	2	0	0	0	1	12	8	2	1
3. About 61 - 80 m2	0	11	0	3	0	0	0	0	14	11	3	0
4. About 81 - 100 m2	13	1	0	1	1	0	5	0	24	14	2	8
5. About 101 - 120 m2	14	7	0	2	2	0	6	0	31	21	4	6
6. About 121 - 140 m2	4	6	0	0	0	0	0	0	10	10	0	0
7. About 141 - 160 m2	0	2	0	0	0	0	0	0	2	2	0	0
8. About 161 - 180 m2	4	1	0	1	0	0	0	0	6	5	1	0
9. More than 181 m2	45	16	14	2	0	4	1	22	104	75	2	27
No clear answer	10	3	2	34	25	26	7	2	109	15	58	35
Total	96	52	16	48	28	30	25	25	320	164	76	80

Total annual income

	Huyện Bình Minh			Thành phố Cần Thơ		Huyện Châu Thành			Cộng	Huyện Bình Minh	Thành phố Cần Thơ	Huyện Châu Thành
	Xã Thuận An	Xã Đông Bình	Xã Mỹ Hòa	Phường Hưng Phú	Xã Hưng Thành	Xã Đông Thành	Thị trấn Cái Răng	Xã Tân P. Thành				
	VL1	VL2	VL3	CT1	CT2	CT3	CT4	CT5				
1. Less than 3 million VND	1	0	0	4	1	2	1	2	11	1	5	5
2. 3 - 5 million VND	2	3	0	3	3	0	3	5	19	5	8	8
3. 5 - 7 million VND	2	5	0	8	2	0	2	1	20	7	10	3
4. 7 - 9 million VND	10	5	2	6	4	6	1	6	40	17	10	13
5. More than 9 million VND	81	39	14	25	18	5	18	10	210	134	43	33
No clear answer	0	0	0	2	0	17	0	1	20	0	2	18
Total	96	52	16	48	28	30	25	25	320	164	76	80

Main source of income

	Huyện Bình Minh			Thành phố Cần Thơ		Huyện Châu Thành			Cộng	Huyện Bình Minh	Thành phố Cần Thơ	Huyện Châu Thành
	Xã Thuận An	Xã Đông Bình	Xã Mỹ Hòa	Phường Hưng Phú	Xã Hưng Thành	Xã Đông Thành	Thị trấn Cái Răng	Xã Tân P. Thành				
	VL1	VL2	VL3	CT1	CT2	CT3	CT4	CT5				
1. Salary / wages	25	5	1	6	8	5	11	6	67	31	14	22
2. Cultivate agriculture lands	28	31	13	35	17	7	7	8	146	72	52	22
3. Fishing, stock farming	5	5	1	2	0	0	1	3	18	12	2	4
4. Business	38	8	1	2	3	0	6	4	62	47	5	10
5. Other sources	0	1	0	1	0	0	0	1	3	1	1	1
Other answer	0	1	0	2	0	18	0	3	24	1	2	21
Total	96	52	16	48	28	30	25	25	320	164	76	80

Surface area of the lands being used by the interviewed resident

	Huyện Bình Minh			Thành phố Cần Thơ		Huyện Châu Thành			Cộng	Huyện Bình Minh	Thành phố Cần Thơ	Huyện Châu Thành
	Xã Thuận An	Xã Đông Bình	Xã Mỹ Hòa	Phường Hưng Phú	Xã Hưng Thành	Xã Đông Thành	Thị trấn Cái Răng	Xã Tân P. Thành				
	VL1	VL2	VL3	CT1	CT2	CT3	CT4	CT5				
1. Less than 100 m2	32	3	0	4	8	1	5	2	55	35	12	8
2. 101 - 200 m2	19	8	0	3	7	0	0	0	37	27	10	0
3. 201 - 300 m2	7	2	0	4	3	2	2	1	21	9	7	5
4. 301 - 500 m2	16	3	3	1	1	1	1	2	28	22	2	4
5. 501 - 1000 m2	11	10	3	3	0	1	6	3	37	24	3	10
6. 1001 - 2000 m2	8	17	0	10	2	3	5	4	49	25	12	12
7. 2001 - 4000 m2	2	4	7	9	1	2	2	4	31	13	10	8
8. 4001 - 6000 m2	1	4	2	6	2	0	2	2	19	7	8	4
More than 6000 m2	0	0	1	5	4	4	1	2	17	1	9	7
Other answer	0	1	0	3	0	16	1	5	26	1	3	22
Total	96	52	16	48	28	30	25	25	320	164	76	80

**Land-Use-Certificate having status**

	Huyện Bình Minh			Thành phố Cần Thơ		Huyện Châu Thành			Cộng	Huyện Bình Minh	Thành phố Cần Thơ	Huyện Châu Thành
	Xã Thuận An	Xã Đông Bình	Xã Mỹ Hòa	Phường Hưng Phú	Xã Hưng Thạnh	Xã Đông Thạnh	Thị trấn Cái Răng	Xã Tân P. Thạnh				
	VL1	VL2	VL3	CT1	CT2	CT3	CT4	CT5				
1. Having the Land-Use-Certificate	46	33	14	21	7	8	11	17	157	83	28	38
2. Not having the Land-Use-Certificate	50	19	2	25	21	0	11	2	130	71	46	13
Other answer	0	0	0	2	0	22	3	6	33	0	2	31
<b>Total</b>	<b>96</b>	<b>52</b>	<b>16</b>	<b>48</b>	<b>28</b>	<b>30</b>	<b>25</b>	<b>25</b>	<b>320</b>	<b>164</b>	<b>76</b>	<b>80</b>

**Surface area of the residential land being used by the interviewed resident**

	Huyện Bình Minh			Thành phố Cần Thơ		Huyện Châu Thành			Cộng	Huyện Bình Minh	Thành phố Cần Thơ	Huyện Châu Thành
	Xã Thuận An	Xã Đông Bình	Xã Mỹ Hòa	Phường Hưng Phú	Xã Hưng Thạnh	Xã Đông Thạnh	Thị trấn Cái Răng	Xã Tân P. Thạnh				
	VL1	VL2	VL3	CT1	CT2	CT3	CT4	CT5				
1. Less than 100 m2	54	23	2	12	4	1	0	1	97	79	16	2
2. 101 ~ 200 m2	5	3	0	11	3	2	1	0	25	6	14	3
3. 201 ~ 300 m2	33	14	14	5	0	5	7	14	92	61	5	26
4. 301 ~ 500 m2	0	0	0	3	0	0	1	0	4	0	3	1
5. 501 ~ 1000 m2	0	1	0	0	0	0	2	1	4	1	0	3
6. 1001 ~ 2000 m2	0	0	0	0	0	0	0	0	0	0	0	0
7. 2001 ~ 4000 m2	0	0	0	0	0	0	0	0	0	0	0	0
8. 4001 ~ 6000 m2	0	0	0	0	0	0	0	0	0	0	0	0
More than 6000 m2	0	0	0	0	0	0	0	0	0	0	0	0
Other answer	4	11	0	17	21	22	14	9	98	15	38	45
<b>Total</b>	<b>96</b>	<b>52</b>	<b>16</b>	<b>48</b>	<b>28</b>	<b>30</b>	<b>25</b>	<b>25</b>	<b>320</b>	<b>164</b>	<b>76</b>	<b>80</b>

**Resettlement Beginning Year**

	Huyện Bình Minh			Thành phố Cần Thơ		Huyện Châu Thành			Cộng	Huyện Bình Minh	Thành phố Cần Thơ	Huyện Châu Thành
	Xã Thuận An	Xã Đông Bình	Xã Mỹ Hòa	Phường Hưng Phú	Xã Hưng Thạnh	Xã Đông Thạnh	Thị trấn Cái Răng	Xã Tân P. Thạnh				
	VL1	VL2	VL3	CT1	CT2	CT3	CT4	CT5				
1. Before 1960	5	5	2	12	0	0	6	1	31	12	12	7
2. During 1960 ~ 1975 period	19	5	5	4	4	0	4	1	42	29	8	5
3. During 1975 ~ 1993 period	38	18	5	19	4	3	4	14	105	61	23	21
4. During 1993 ~ 1995 period	2	8	0	3	0	0	2	0	13	8	3	2
5. After 1995	19	4	1	2	3	0	1	4	34	24	5	5
Other answer	13	14	3	8	17	27	8	5	95	30	25	40
<b>Total</b>	<b>96</b>	<b>52</b>	<b>16</b>	<b>48</b>	<b>28</b>	<b>30</b>	<b>25</b>	<b>25</b>	<b>320</b>	<b>164</b>	<b>76</b>	<b>80</b>

**Background of the land use right**

	Huyện Bình Minh			Thành phố Cần Thơ		Huyện Châu Thành			Cộng	Huyện Bình Minh	Thành phố Cần Thơ	Huyện Châu Thành
	Xã Thuận An	Xã Đông Bình	Xã Mỹ Hòa	Phường Hưng Phú	Xã Hưng Thạnh	Xã Đông Thạnh	Thị trấn Cái Răng	Xã Tân P. Thạnh				
	VL1	VL2	VL3	CT1	CT2	CT3	CT4	CT5				
1. Self-exploited land	2	4	0	3	0	4	0	0	13	8	3	4
2. Inherited land	19	24	15	40	21	4	15	8	148	58	61	27
3. Bought land	27	8	0	3	5	6	7	10	66	35	8	23
4. Rent land	0	1	0	0	0	0	0	0	1	1	0	0
5. Borrowing land	39	3	1	2	0	0	2	1	48	43	2	3
6. Assigned by the government	9	11	0	0	0	0	0	4	24	20	0	4
7. Temporary assigned by the government	0	0	0	0	0	0	0	0	0	0	0	0
Other answer	0	1	0	0	2	16	1	2	22	1	2	19
<b>Total</b>	<b>96</b>	<b>52</b>	<b>16</b>	<b>48</b>	<b>28</b>	<b>30</b>	<b>25</b>	<b>25</b>	<b>320</b>	<b>164</b>	<b>76</b>	<b>80</b>

**Possibility of resettling right near the existing dwelling**

	Huyện Bình Minh			Thành phố Cần Thơ		Huyện Châu Thành			Cộng	Huyện Bình Minh	Thành phố Cần Thơ	Huyện Châu Thành
	Xã Thuận An	Xã Đông Bình	Xã Mỹ Hòa	Phường Hưng Phú	Xã Hưng Thạnh	Xã Đông Thạnh	Thị trấn Cái Răng	Xã Tân P. Thạnh				
	VL1	VL2	VL3	CT1	CT2	CT3	CT4	CT5				
Not having any other dwelling	92	52	15	37	20	10	20	10	256	159	67	40
Having one or more other dwelling	3	0	1	1	1	0	3	3	12	4	2	6
Other answer	1	0	0	10	7	20	2	12	52	1	17	34
<b>Total</b>	<b>96</b>	<b>52</b>	<b>16</b>	<b>48</b>	<b>28</b>	<b>30</b>	<b>25</b>	<b>25</b>	<b>320</b>	<b>164</b>	<b>76</b>	<b>80</b>

**Possibility of resettling right near the existing dwelling (having other land of larger than 400 m2)**

	Huyện Bình Minh			Thành phố Cần Thơ		Huyện Châu Thành			Cộng	Huyện Bình Minh	Thành phố Cần Thơ	Huyện Châu Thành
	Xã Thuận An	Xã Đông Bình	Xã Mỹ Hòa	Phường Hưng Phú	Xã Hưng Thạnh	Xã Đông Thạnh	Thị trấn Cái Răng	Xã Tân P. Thạnh				
	VL1	VL2	VL3	CT1	CT2	CT3	CT4	CT5				
Not having any other large land	61	43	6	23	13	10	20	8	184	110	36	38
Having one or more larger land	35	9	8	13	10	1	2	2	81	53	23	5
Other answer	0	0	1	12	5	19	3	15	55	1	17	37
<b>Total</b>	<b>96</b>	<b>52</b>	<b>16</b>	<b>48</b>	<b>28</b>	<b>30</b>	<b>25</b>	<b>25</b>	<b>320</b>	<b>164</b>	<b>76</b>	<b>80</b>

Possibly of resettling right near the existing dwelling (having other land of larger than 400 m<sup>2</sup>, and close to the existing dwelling)

	Huyện Bình Minh			Thành phố Cần Thơ		Huyện Châu Thành			Cộng	Huyện Bình Minh	Thành phố Cần Thơ	Huyện Châu Thành
	Xã Thuận An	Xã Đông Bình	Xã Mỹ Hòa	Phường Hưng Phú	Xã Hưng Thạnh	Xã Đông Thạnh	Thị trấn Cái Răng	Xã Tân P. Thạnh				
	VL1	VL2	VL3	CT1	CT2	CT3	CT4	CT5				
Less than 200 m from existing dwelling	5	5	6	6	6	1	0	0	29	16	12	1
Less than 500 m from existing dwelling	7	6	7	10	7	1	1	1	40	20	17	3
More than 500 m from existing dwelling	28	3	2	3	3	0	1	1	41	33	6	2
<b>Total</b>	<b>35</b>	<b>9</b>	<b>9</b>	<b>13</b>	<b>10</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>81</b>	<b>53</b>	<b>23</b>	<b>6</b>

Possibility of resettling right near the existing dwelling (having other suitable dwelling or land)

	Huyện Bình Minh			Thành phố Cần Thơ		Huyện Châu Thành			Cộng	Huyện Bình Minh	Thành phố Cần Thơ	Huyện Châu Thành
	Xã Thuận An	Xã Đông Bình	Xã Mỹ Hòa	Phường Hưng Phú	Xã Hưng Thạnh	Xã Đông Thạnh	Thị trấn Cái Răng	Xã Tân P. Thạnh				
	VL1	VL2	VL3	CT1	CT2	CT3	CT4	CT5				
Having other dwelling	3	0	1	1	1	0	3	3	12	4	2	6
Having other suitable land	6	5	5	6	6	1	0	0	29	16	12	1
<b>Total</b>	<b>9</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>7</b>	<b>1</b>	<b>3</b>	<b>3</b>	<b>41</b>	<b>20</b>	<b>14</b>	<b>7</b>

Number of interviewed residents who is able to resettle right near the existing dwelling and has intention to move to the Resettlement Site

	Huyện Bình Minh			Thành phố Cần Thơ		Huyện Châu Thành			Cộng	Huyện Bình Minh	Thành phố Cần Thơ	Huyện Châu Thành
	Xã Thuận An	Xã Đông Bình	Xã Mỹ Hòa	Phường Hưng Phú	Xã Hưng Thạnh	Xã Đông Thạnh	Thị trấn Cái Răng	Xã Tân P. Thạnh				
	VL1	VL2	VL3	CT1	CT2	CT3	CT4	CT5				
Resident who is able to resettle near existing dwelling	9	5	6	7	7	1	3	3	41	20	14	7
Resident who has intention to move to the RS	86	46	14	18	4	11	17	23	221	148	22	51
Resident who has intention to move to the RS, but is able to resettle near existing dwelling	6	4	3	6	0	0	1	2	221	148	22	51

Number of residents who has right to be resettled in the Resettlement Site and has intention to do so

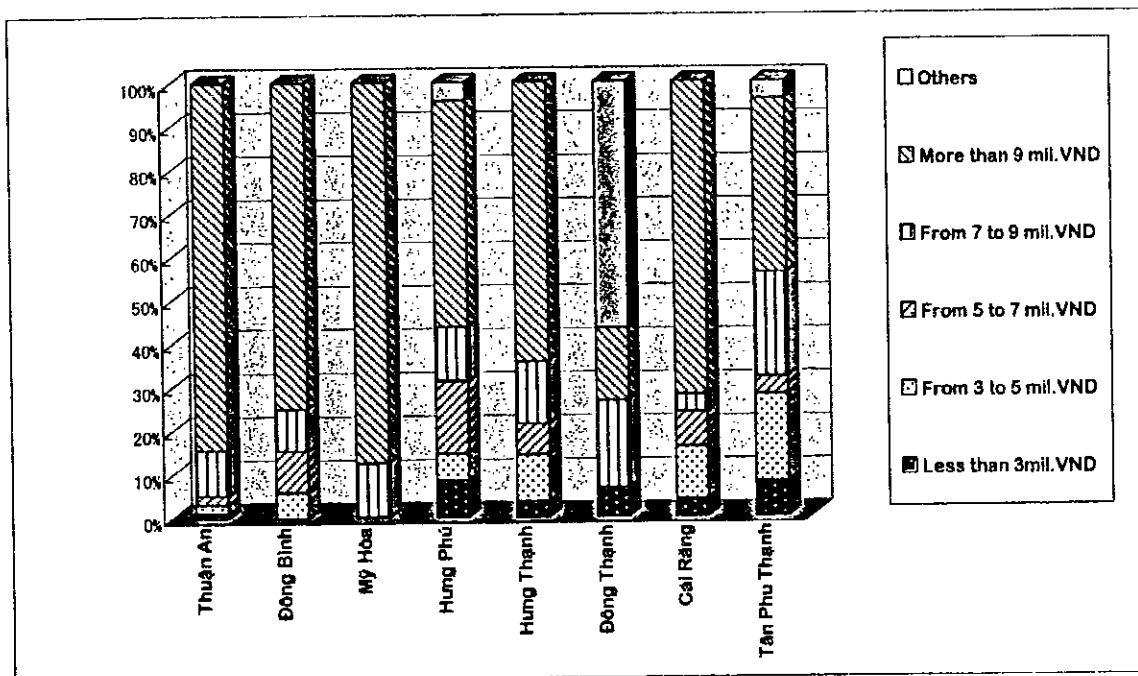
	Huyện Bình Minh			Thành phố Cần Thơ		Huyện Châu Thành			Cộng	Huyện Bình Minh	Thành phố Cần Thơ	Huyện Châu Thành
	Xã Thuận An	Xã Đông Bình	Xã Mỹ Hòa	Phường Hưng Phú	Xã Hưng Thạnh	Xã Đông Thạnh	Thị trấn Cái Răng	Xã Tân P. Thạnh				
	VL1	VL2	VL3	CT1	CT2	CT3	CT4	CT5				
Resident who has intention to move to the RS	86	46	14	18	4	11	17	23	221	148	22	51
Resident who has intention to move to the RS, but is able to resettle near his/her existing dwelling	5	4	3	6	0	0	1	2	21	12	6	3
Resident who has intention to move to the RS, and is not able to resettle near his/her existing dwelling	81	44	11	12	4	11	16	21	200	136	16	48

House classification

	Huyện Bình Minh			Thành phố Cần Thơ		Huyện Châu Thành			Cộng	Huyện Bình Minh	Thành phố Cần Thơ	Huyện Châu Thành
	Xã Thuận An	Xã Đông Bình	Xã Mỹ Hòa	Phường Hưng Phú	Xã Hưng Thạnh	Xã Đông Thạnh	Thị trấn Cái Răng	Xã Tân P. Thạnh				
	VL1	VL2	VL3	CT1	CT2	CT3	CT4	CT5				
Class 1	2	0	0	0	0	0	0	2	4	2	0	2
Class 2	2	2	0	0	0	2	0	0	6	4	0	2
Class 3	28	17	6	14	9	7	18	11	110	51	23	36
Class 4	64	33	10	34	19	4	7	11	182	107	53	22
No answer	0	0	0	0	0	17	0	1	18	0	0	18
<b>Total</b>	<b>96</b>	<b>52</b>	<b>16</b>	<b>48</b>	<b>28</b>	<b>30</b>	<b>25</b>	<b>25</b>	<b>320</b>	<b>164</b>	<b>76</b>	<b>80</b>
House located within the construction yards, and the resettlement sites												
Class 1	2	0	0	0	0	0	0	2	4	2	0	2
Class 2	2	2	0	0	0	2	0	0	6	4	0	2
Class 3	28	17	6	14	9	7	18	11	110	51	23	36
Class 4	64	33	10	34	19	4	7	11	182	107	53	22
No answer	0	0	0	0	0	17	0	1	18	0	0	18
<b>Total</b>	<b>96</b>	<b>52</b>	<b>16</b>	<b>48</b>	<b>28</b>	<b>30</b>	<b>25</b>	<b>25</b>	<b>323</b>	<b>164</b>	<b>76</b>	<b>80</b>
Total number of affected houses												
Class 1	4	0	0	0	0	0	0	4	8	4	0	4
Class 2	4	4	0	0	0	4	0	0	12	8	0	4
Class 3	66	34	12	28	18	14	36	22	220	102	46	72
Class 4	128	66	20	68	38	8	14	22	364	214	106	44
No answer	0	0	0	0	0	34	0	2	36	0	0	36
<b>Total</b>	<b>192</b>	<b>104</b>	<b>32</b>	<b>96</b>	<b>56</b>	<b>60</b>	<b>60</b>	<b>50</b>	<b>553</b>	<b>328</b>	<b>152</b>	<b>160</b>

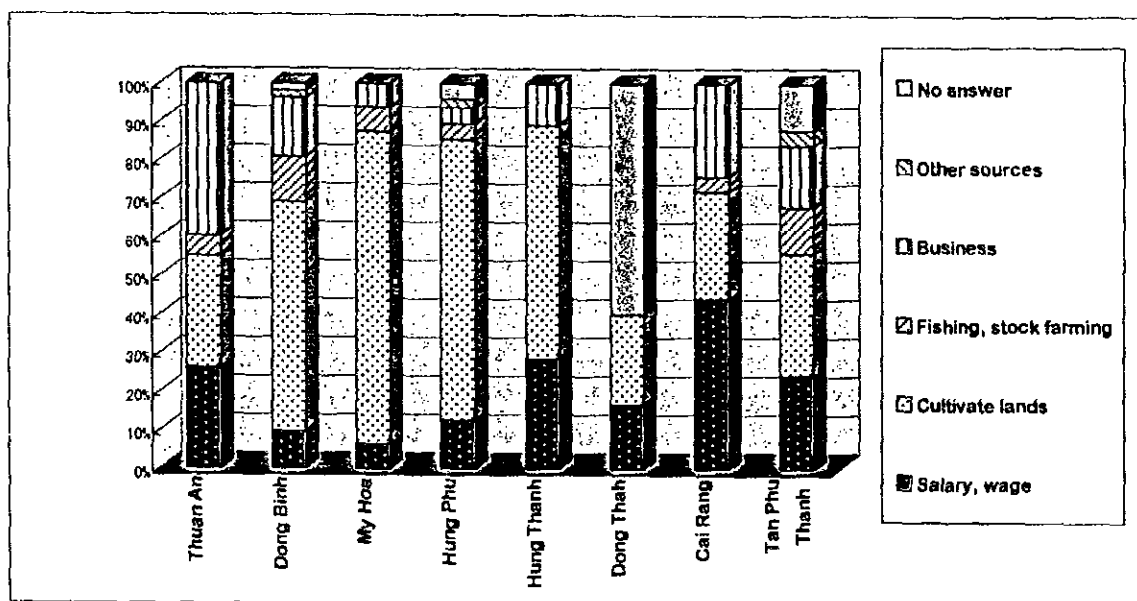
### Total annual income

	Huyện Bình Minh			hành phố Cần Thơ		Huyện Châu Thành			Cộng	Huyện Bình Minh	Thành phố Cần Thơ	Huyện Châu Thành
	Thuận An	Đông Bình	Mỹ Hòa	Hưng Phú	Hưng Thạnh	Đông Thạnh	Cái Răng	Tân Phú Thành				
	VL1	VL2	VL3	CT1	CT2	CT3	CT4	CT5				
Less than 3mil.VND	1	0	0	4	1	2	1	2	11	1	5	5
From 3 to 5 mil.VND	2	3	0	3	3	0	3	5	19	5	6	8
From 5 to 7 mil.VND	2	5	0	8	2	0	2	1	20	7	10	3
From 7 to 9 mil.VND	10	5	2	6	4	6	1	6	40	17	10	13
More than 9 mil.VND	81	39	14	25	18	5	18	10	210	134	43	33
Others	0	0	0	2	0	17	0	1	20	0	2	18
<b>Total</b>	<b>96</b>	<b>52</b>	<b>16</b>	<b>48</b>	<b>28</b>	<b>30</b>	<b>25</b>	<b>25</b>	<b>320</b>	<b>164</b>	<b>76</b>	<b>80</b>



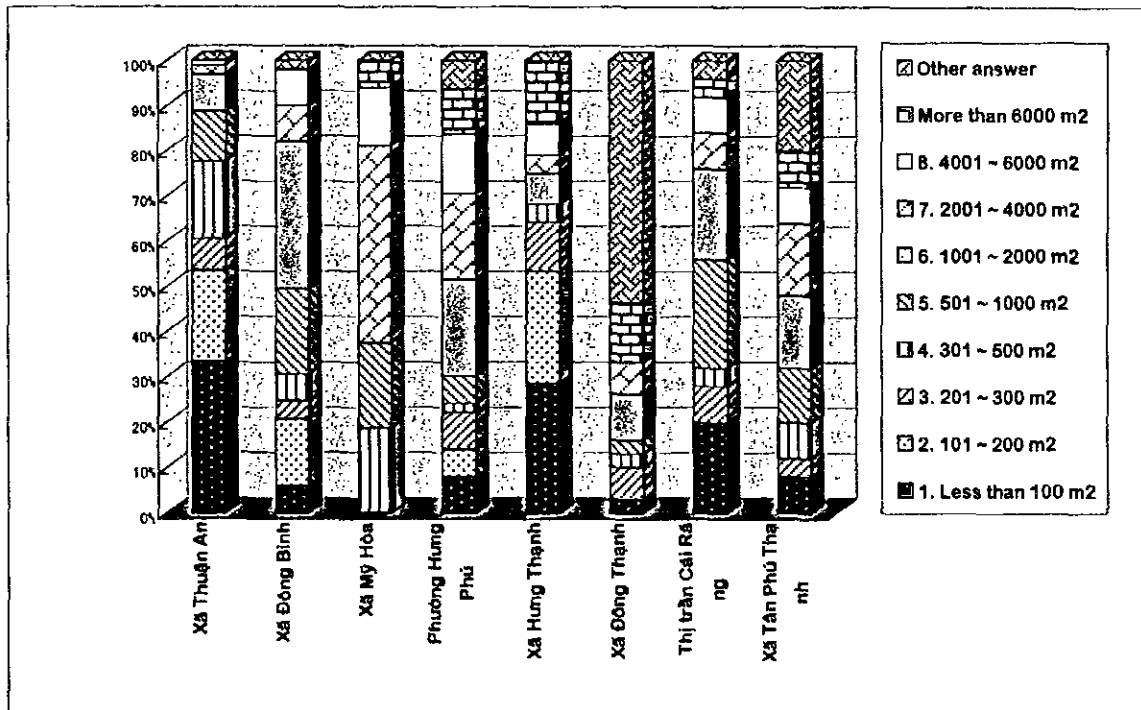
### Main source of income

	Huyện Bình Minh			TP Cần Thơ		Huyện Châu Thành			Total	Bình Minh	Thành phố Cần Thơ	Huyện Châu Thành
	Thuan An	Dong Binh	My Hoa	Hung Phu	Hung Thanh	Dong Thah	Cai Rang	Tan Phu Thanh				
	VL1	VL2	VL3	CT1	CT2	CT3	CT4	CT5				
Salary, wage	25	5	1	6	8	5	11	6	67	31	14	22
Cultivate lands	28	31	13	35	17	7	7	8	146	72	52	22
Fishing, stock farming	5	6	1	2	0	0	1	3	18	12	2	4
Business	38	8	1	2	3	0	6	4	62	47	5	10
Other sources	0	1	0	1	0	0	0	1	3	1	1	1
No answer	0	1	0	2	0	18	0	3	24	1	2	21
<b>Total</b>	<b>96</b>	<b>52</b>	<b>16</b>	<b>48</b>	<b>28</b>	<b>30</b>	<b>25</b>	<b>25</b>	<b>320</b>	<b>164</b>	<b>76</b>	<b>80</b>



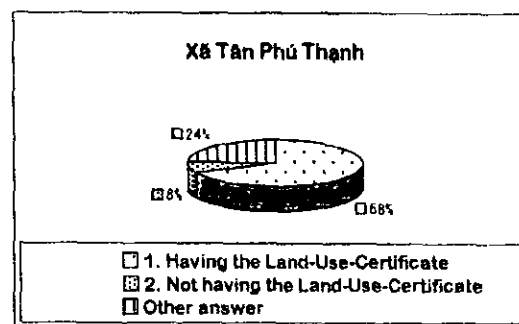
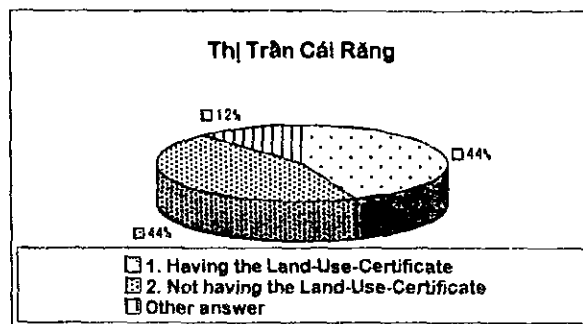
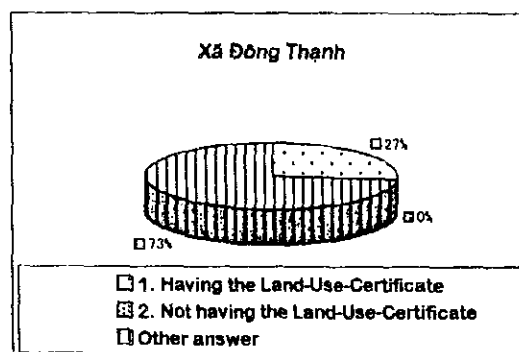
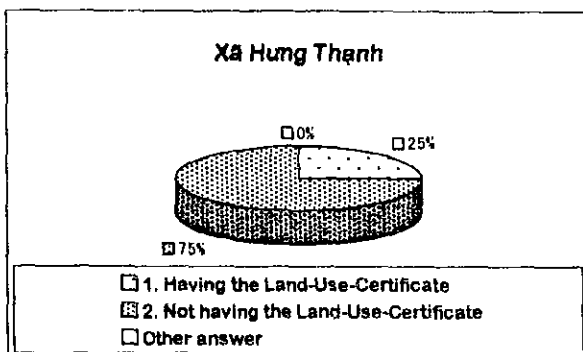
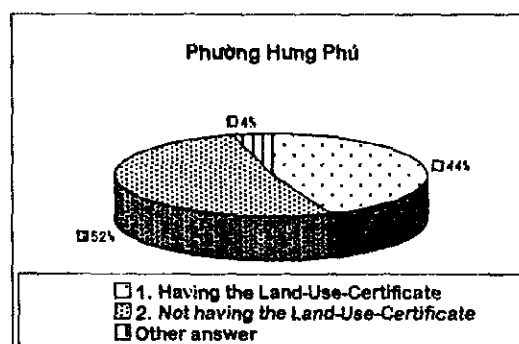
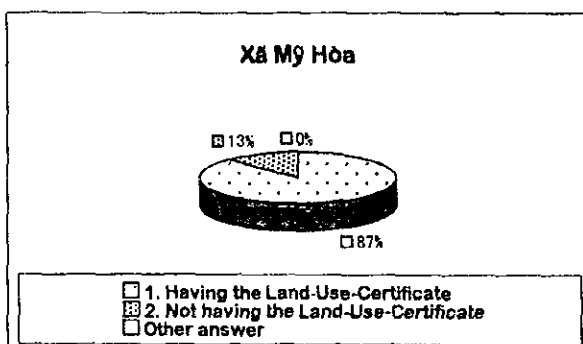
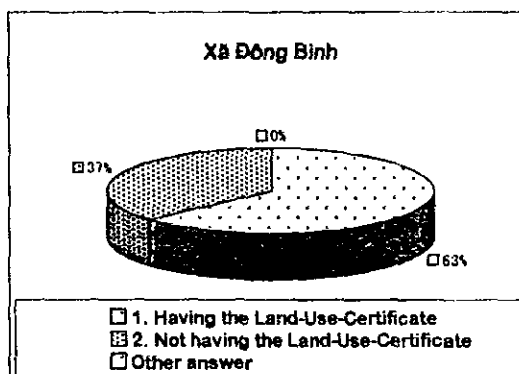
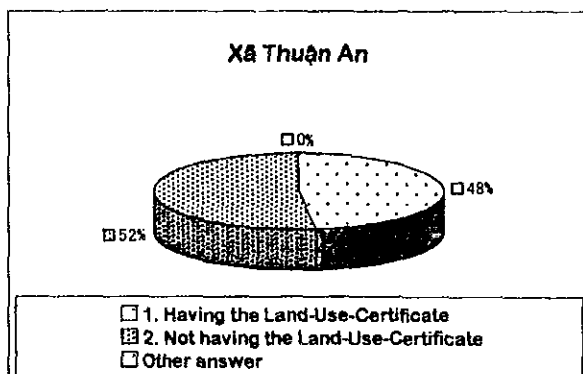
### Surface area of the lands being used by the interviewed resident

	Huyện Bình Minh			TP Cần Thơ		Huyện Châu Thành			Cộng	Huyện Bình Minh	Thành phố Cần Thơ	Huyện Châu Thành
	Xã Thuận An	Xã Đông Bình	Xã Mỹ Hòa	Phường Hưng Phú	Xã Hưng Thạnh	Xã Đông Thạnh	Thị trấn Cái Răng	Xã Tân Phú				
	VL1	VL2	VL3	CT1	CT2	CT3	CT4	CT5				
1. Less than 100 m <sup>2</sup>	33	6	0	8	29	3	20	8	17	21	16	10
2. 101 ~ 200 m <sup>2</sup>	20	15	0	6	25	0	0	0	12	16	13	0
3. 201 ~ 300 m <sup>2</sup>	7	4	0	8	11	7	8	4	7	5	9	6
4. 301 ~ 500 m <sup>2</sup>	17	6	19	2	4	3	4	8	9	13	3	5
5. 501 ~ 1000 m <sup>2</sup>	11	19	19	6	0	3	24	12	12	15	4	13
6. 1001 ~ 2000 m <sup>2</sup>	8	33	0	21	7	10	20	16	15	16	16	15
7. 2001 ~ 4000 m <sup>2</sup>	2	8	44	19	4	7	8	16	10	8	13	10
8. 4001 ~ 6000 m <sup>2</sup>	1	8	13	13	7	0	8	8	6	4	11	5
More than 6000 m <sup>2</sup>	0	0	6	10	14	13	4	8	5	1	12	9
Other answer	0	2	0	6	0	53	4	20	8	1	4	28
Total	100	100	100	100	100	100	100	100	100	100	100	100



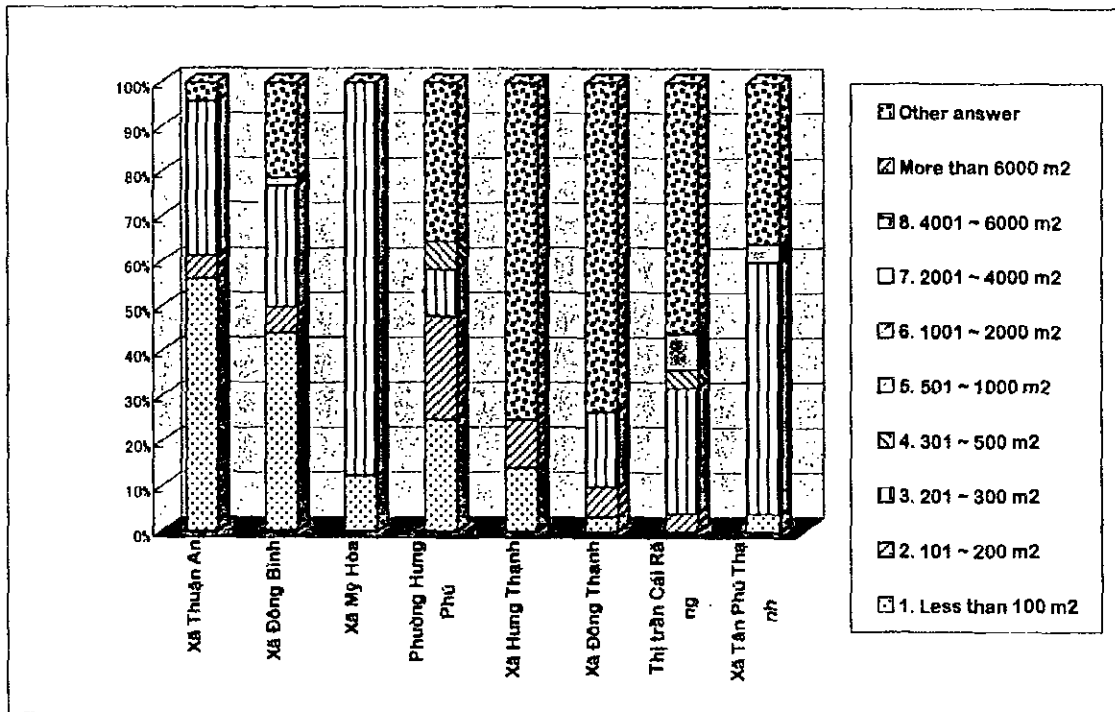
## Land-Use-Certificate having status

	Huyện Bình Minh			hành phố Cần Thơ		Huyện Châu Thành			Cộng	Huyện Bình Minh	Thành phố Cần Thơ	Huyện Châu Thành
	Xã Thuận An	Xã Đông Bình	Xã Mỹ Hòa	Phường Hưng Phú	Xã Hưng Thạnh	Xã Đông Thạnh	Thị trấn Cái Răng	Xã Tân Phú Thạnh				
	VL1	VL2	VL3	CT1	CT2	CT3	CT4	CT5				
1. Having the Land-Use-Certificate	46	33	14	21	7	8	11	17	157	93	28	36
2. Not having the Land-Use-Certificate	50	19	2	25	21	0	11	2	130	71	46	13
Other answer	0	0	0	2	0	22	3	6	33	0	2	31
<b>Total</b>	<b>96</b>	<b>52</b>	<b>16</b>	<b>48</b>	<b>28</b>	<b>30</b>	<b>25</b>	<b>25</b>	<b>320</b>	<b>164</b>	<b>76</b>	<b>80</b>



### Surface area of the residential land being used by the interviewed resident

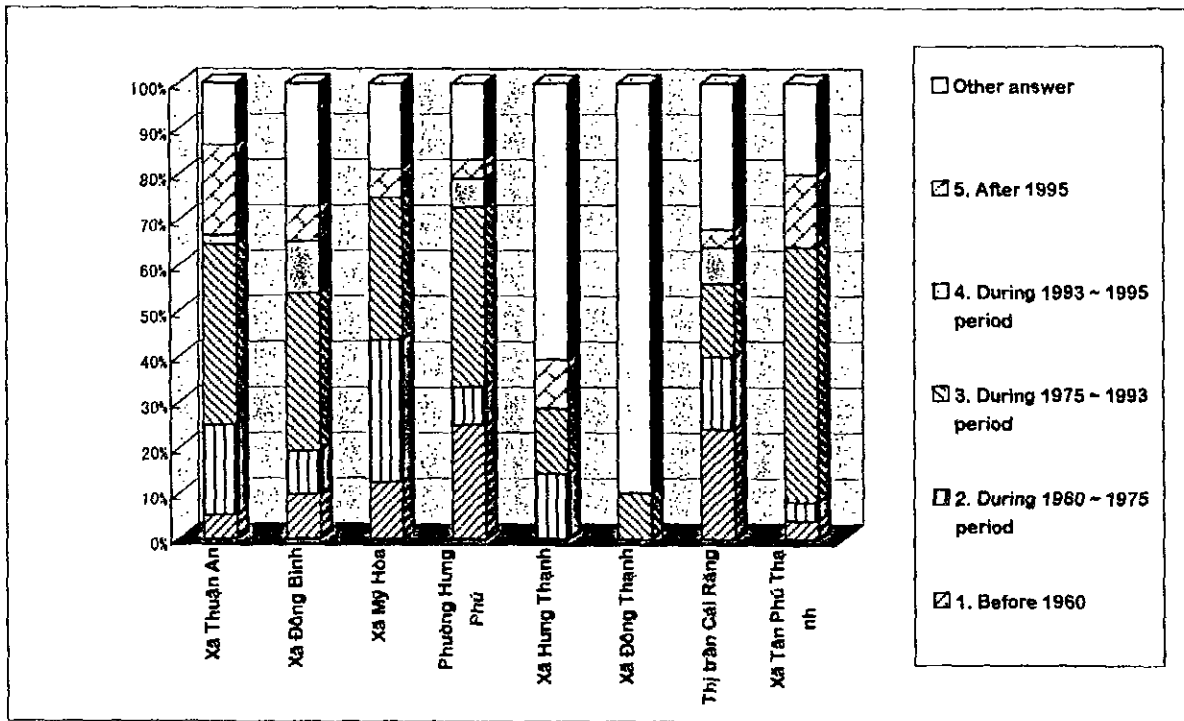
	Huyện Bình Minh			TP Cần Thơ		Huyện Châu Thành			Cộng	Huyện Bình Minh	Thành phố Cần Thơ	Huyện Châu Thành
	Xã Thuận An	Xã Đông Bình	Xã Mỹ Hòa	Phường Hưng Phú	Xã Hưng Thạnh	Xã Đông Thạnh	Thị trấn Cái Răng	Xã Tân Phú				
	VL1	VL2	VL3	CT1	CT2	CT3	CT4	CT5				
1. Less than 100 m <sup>2</sup>	54	23	2	12	4	1	0	1	97	79	16	2
2. 101 ~ 200 m <sup>2</sup>	5	3	0	11	3	2	1	0	25	8	14	3
3. 201 ~ 300 m <sup>2</sup>	33	14	14	5	0	5	7	14	92	61	5	26
4. 301 ~ 500 m <sup>2</sup>	0	0	0	3	0	0	1	0	4	0	3	1
5. 501 ~ 1000 m <sup>2</sup>	0	1	0	0	0	0	2	1	4	1	0	3
6. 1001 ~ 2000 m <sup>2</sup>	0	0	0	0	0	0	0	0	0	0	0	0
7. 2001 ~ 4000 m <sup>2</sup>	0	0	0	0	0	0	0	0	0	0	0	0
8. 4001 ~ 6000 m <sup>2</sup>	0	0	0	0	0	0	0	0	0	0	0	0
More than 6000 m <sup>2</sup>	0	0	0	0	0	0	0	0	0	0	0	0
Other answer	4	11	0	17	21	22	14	9	98	15	38	45
<b>Total</b>	<b>96</b>	<b>52</b>	<b>16</b>	<b>48</b>	<b>28</b>	<b>30</b>	<b>25</b>	<b>25</b>	<b>320</b>	<b>164</b>	<b>76</b>	<b>80</b>





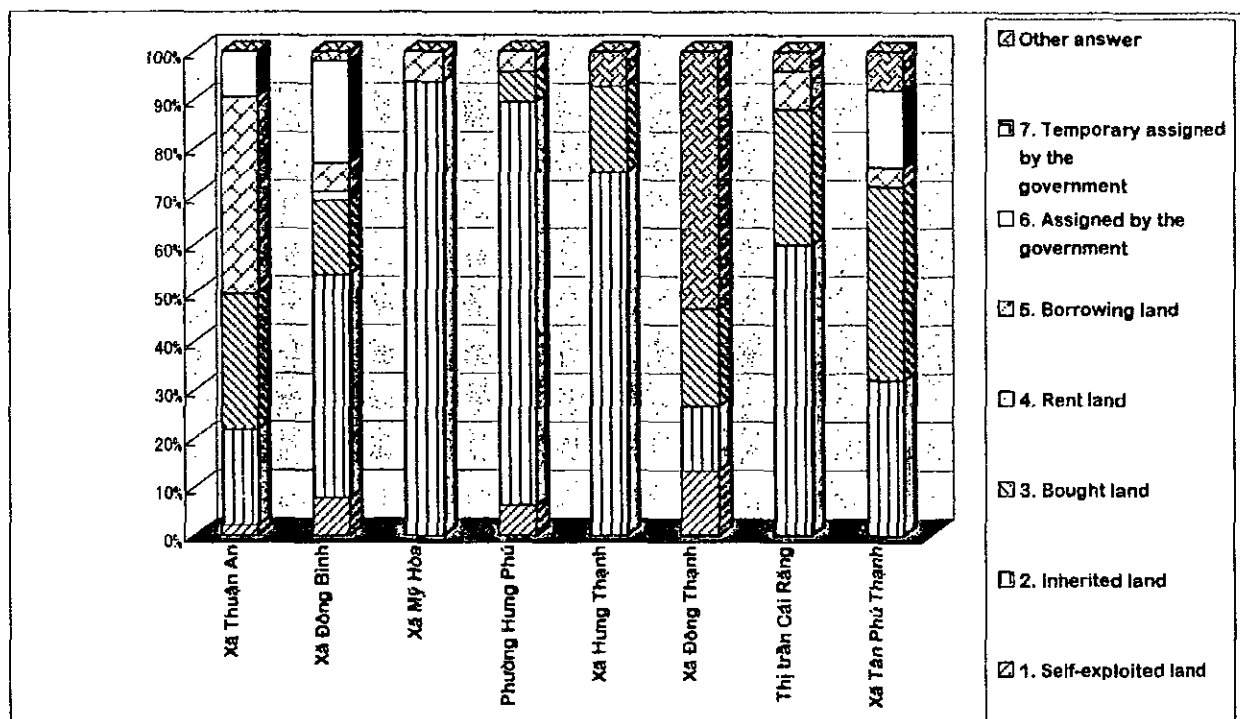
### Resettlement Beginning Year

	Huyện Bình Minh			TP Cần Thơ		Huyện Châu Thành			Cộng	Huyện Bình Minh	Thành phố Cần Thơ	Huyện Châu Thành
	Xã Thuận An	Xã Đông Bình	Xã Mỹ Hòa	Phường Hưng Phú	Xã Hưng Thạnh	Xã Đông Thạnh	Thị trấn Cái Răng	Xã Tân Phú				
	VL1	VL2	VL3	CT1	CT2	CT3	CT4	CT5				
1. Before 1960	5	5	2	12	0	0	6	1	31	12	12	7
2. During 1960 ~ 1975 period	19	5	5	4	4	0	4	1	42	29	8	5
3. During 1975 ~ 1993 period	38	18	5	19	4	3	4	14	105	61	23	21
4. During 1993 ~ 1995 period	2	6	0	3	0	0	2	0	13	8	3	2
5. After 1995	19	4	1	2	3	0	1	4	34	24	5	5
Other answer	13	14	3	8	17	27	8	6	95	30	25	40
<b>Total</b>	<b>96</b>	<b>52</b>	<b>16</b>	<b>48</b>	<b>28</b>	<b>30</b>	<b>25</b>	<b>25</b>	<b>320</b>	<b>164</b>	<b>76</b>	<b>80</b>



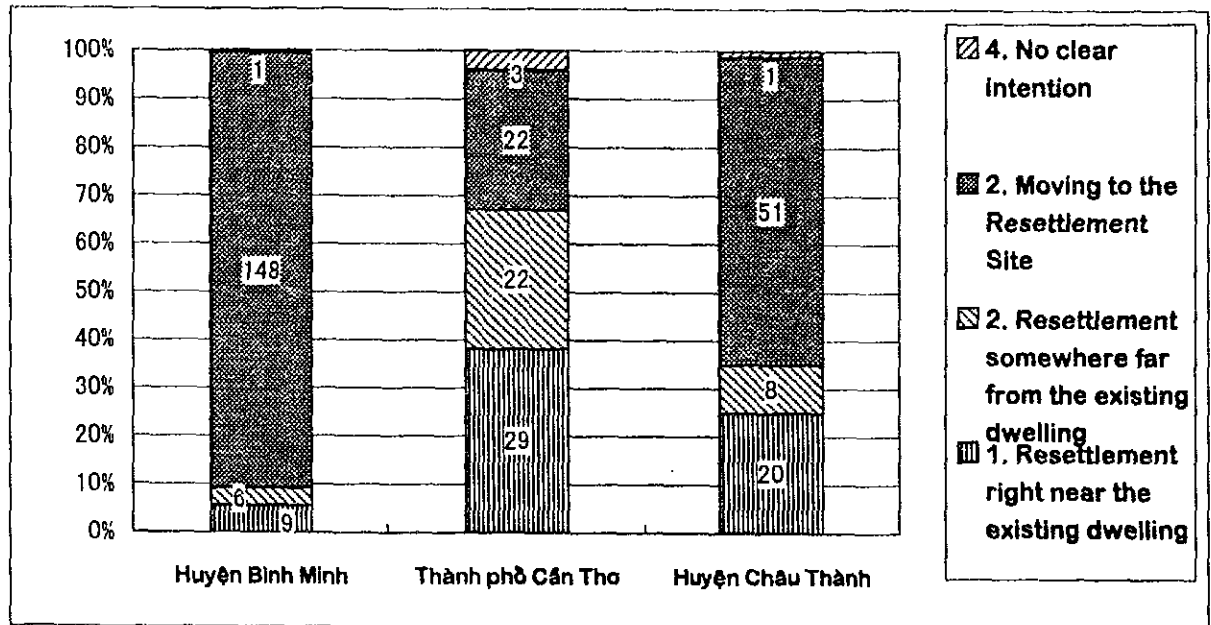
## Background of the land use right

	Huyện Bình Minh			TP Cần Thơ		Huyện Châu Thành			Cộng	Huyện Bình Minh	Thành phố Cần Thơ	Huyện Châu Thành
	Xã Thuận An	Xã Đông Bình	Xã Mỹ Hòa	Phường Hưng Phú	Xã Hưng Thạnh	Xã Đông Thạnh	Thị trấn Cái Răng	Xã Tân Phú				
	VL1	VL2	VL3	CT1	CT2	CT3	CT4	CT5				
1. Self-exploited land	2	4	0	3	0	4	0	0	13	6	3	4
2. Inherited land	19	24	15	40	21	4	15	8	146	58	61	27
3. Bought land	27	8	0	3	5	6	7	10	66	35	8	23
4. Rent land	0	1	0	0	0	0	0	0	1	1	0	0
5. Borrowing land	39	3	1	2	0	0	2	1	48	43	2	3
6. Assigned by the government	9	11	0	0	0	0	0	4	24	20	0	4
7. Temporary assigned by the government	0	0	0	0	0	0	0	0	0	0	0	0
Other answer	0	1	0	0	2	16	1	2	22	1	2	19
<b>Total</b>	<b>96</b>	<b>52</b>	<b>16</b>	<b>48</b>	<b>28</b>	<b>30</b>	<b>25</b>	<b>25</b>	<b>320</b>	<b>164</b>	<b>76</b>	<b>80</b>



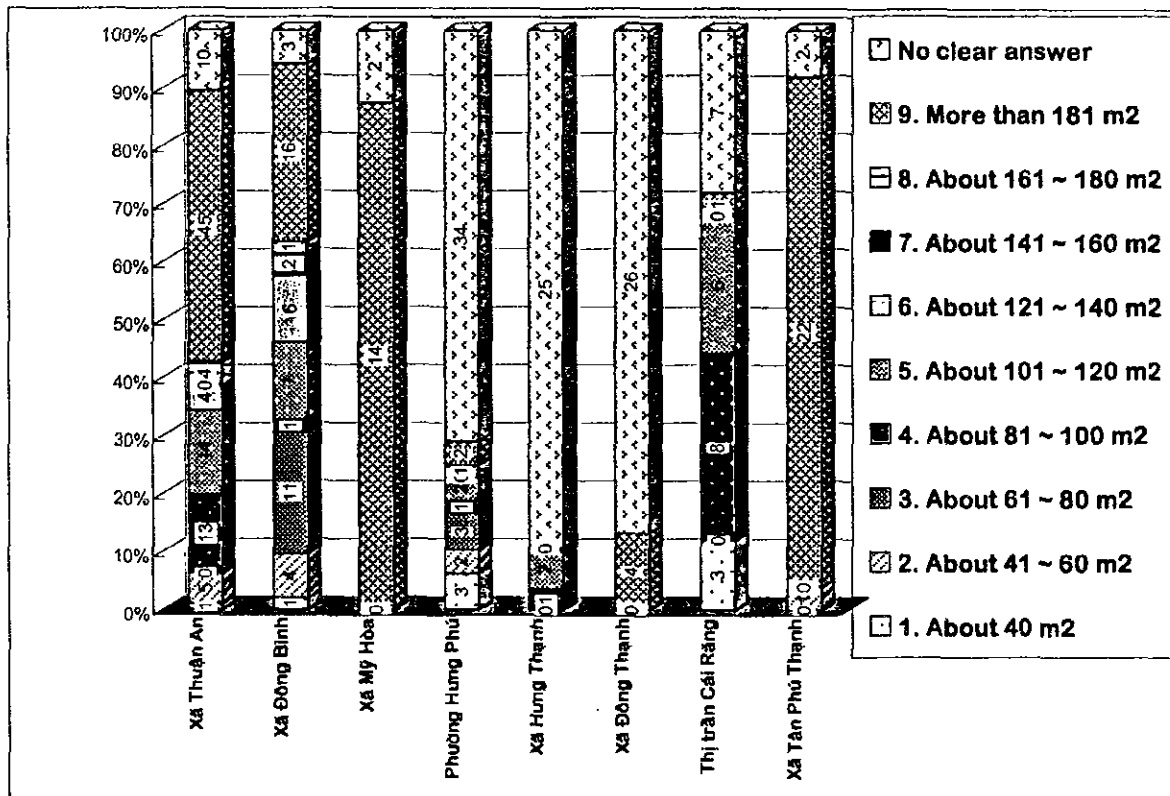
## Intention on resettlement

	Huyện Bình Minh	Thành phố Cần Thơ	Huyện Châu Thành
1. Resettlement right near the existing dwelling	9	29	20
2. Resettlement somewhere far from the existin	6	22	8
2. Moving to the Resettlement Site	148	22	51
4. No clear intention	1	3	1
<b>Total</b>	<b>164</b>	<b>76</b>	<b>80</b>



Opinion on the desirable area of the dwelling lot to be allocated in the Resettlement Site

	Huyện Bình Minh			TP Cần Thơ		Huyện Châu Thành			Cộng	Huyện Bình Minh	Thành phố Cần Thơ	Huyện Châu Thành
	Xã Thuận An VL1	Xã Đông Bình VL2	Xã Mỹ Hòa VL3	Phường Hưng Phú CT1	Xã Hưng Thạnh CT2	Xã Đông Thạnh CT3	Thị trấn Cái Răng CT4	Xã Tân Phú CT5				
1. About 40 m <sup>2</sup>	1	1	0	3	0	0	3	0	8	2	3	3
2. About 41 ~ 60 m <sup>2</sup>	5	4	0	2	0	0	0	1	12	9	2	1
3. About 61 ~ 80 m <sup>2</sup>	0	11	0	3	0	0	0	0	14	11	3	0
4. About 81 ~ 100 m <sup>2</sup>	13	1	0	1	1	0	8	0	24	14	2	8
5. About 101 ~ 120 m <sup>2</sup>	14	7	0	2	2	0	6	0	31	21	4	6
6. About 121 ~ 140 m <sup>2</sup>	4	6	0	0	0	0	0	0	10	10	0	0
7. About 141 ~ 160 m <sup>2</sup>	0	2	0	0	0	0	0	0	2	2	0	0
8. About 161 ~ 180 m <sup>2</sup>	4	1	0	1	0	0	0	0	6	5	1	0
9. More than 181 m <sup>2</sup>	45	16	14	2	0	4	1	22	104	75	2	27
No clear answer	10	3	2	34	25	26	7	2	109	15	59	35
Total	96	52	16	48	28	30	25	25	320	164	78	80



# VN's longest bridge approved to link Vinh Long, Cần Thơ provinces

by Lê Hùng Vong.

**CẦN THƠ** — Approval has been given for the safe clearance and resettlement of residents affected by construction of Cần Thơ Bridge by the Minister of Transport, Lê Ngọc Hoàn.

The Cửu Long (Mekong) Delta's bridge, to be built on National Highway No. 1A, will be Việt Nam's longest bridge and will link Vinh Long Province's Bình Minh District to the north, with Cần Thơ Province's Châu Thành District in the south.

According to a decision signed by Minister Hoàn on April 28, construction preparations, including site clearance and resettlement, will cost VNĐ141.6 billion (US\$10 million). Total construction costs are expected to be about \$295 million, making it not only the longest, but most expensive bridge to be built in Việt Nam.

Funding for the bridge will come from the Japan Bank of International Co-operation (JBIC) and the Vietnamese Government with a loan agreement expected to be signed between the two parties late this year, said Dr. Đặng Thị Học, deputy director of the Transport Ministry's International Relations Department.

Funds earmarked specifically for compensation, demolition of homes and the building of new residential areas to house those forced to make way for the bridge will come from the Government's own contribution to the project.

Compensation calculations for those effected by construction will be conducted between July and September, while new residential areas will be completed by October this year.

Dr. Học told *Việt Nam News* that bridge construction is scheduled to start early next year and will take about four years to complete.

The total area needed for construction will be 265.8ha — 194ha for the bridge, 62.2ha for the construction site and 9.6ha for residential areas.

Once complete, Cần Thơ Bridge is expected to pave the way for further development of Cần Thơ, city, the capital of the Mekong Delta and neighbouring provinces, according to a Transport Ministry report.

A master plan for the development of Cần Thơ city to 2010 identified Cần Thơ Bridge as a key factor in attracting domestic and foreign investment to the Mekong Delta area.

The six-lane bridge (four lanes for vehicles and two walkways for pedestrians) will provide a much needed alternative for traffic which currently crosses the river by ferry at Cần Thơ.

The Cần Thơ ferry carries about 7,000 vehicles per day, a figure expected to rise to 13,000 by 2006,

according to estimates from the Cần Thơ Ferry Company.

Ministry of Transport officials say Cần Thơ Bridge will carry about 17,000 vehicles a day by 2006, rising to more than 29,500 by 2010 and 75,000 by 2020.

The cable-braced bridge will span the Hậu River (on the lower Mekong) and will be made from reinforced concrete on caisson piers. It will be 2,720m long, including approach ramps, and 24.9m wide. With approach roads included, the bridge will stretch a total of 15.35km.

At 39m high, the bridge will allow 15,000 dead weight tonne sized ships to pass under its 1,040m centre span.

Cần Thơ Bridge will be the third bridge across the lower reaches of the Mekong River. The others are the Friendship Bridge connecting Thailand and Laos, and Mỹ Thuận Bridge across the Tiền River, due to be opened soon. — **VNS**

## *Appendix 7*

### **ESTIMATE OF PROJECT COST**

7.1	PROVIDING THE DETAILED UNIT PRICES OF THE CAN THO BRIDGE PROJECT, 14 JUNE 2000	A7-1
7.2	THE REVIEW OF THE COST ESTIMATION, 14 SEPTEMBER 2000	A7-20



7.1 Providing the Detailed Unit Prices of the Can Tho Bridge Project, 14 June 2000



**NIPPON KOEI CO., LTD.**

Consulting Engineers

Fax: 84-4-8249066, c/o PMU-My Thuan, Hanoi 5, Kojimachi 2-Chome, Chiyoda-Ku, Tokyo

To: Mr. Le Long Dinh

From: Koji Enomoto

Director General

Team Leader, JICA Study Team

PMU - My Thuan

Copy to: Mr. Doan Quang Hung

Vice Director General

PMU - My Thuan

Telex : J24557 KOEICO  
Telephone : 81-3 (5276)  
Facsimile : 81-3 (5276)  
E-mail :

Your ref.

Our ref. Date: 14 June 2000  
( FNPKO-031 )

Subject: Providing the Detailed Unit Prices of the Can Tho Bridge Project

Dear Sir,

As your representative's request by the letter No.854/PBCT dated 12 June 2000, we would like to submit the documents regarding the unit prices for the Can Tho Bridge Construction. Please consider the situation that since the unit prices calculated during the detailed design were based on much more detailed information and procedures for cost estimation than the previous Feasibility Study and Basic Design based on the exchange rate of 127 JPY and 12,950VND against 1 USD (Sept. 1998). There is not exact consistency for individual item, but they are comparable for each category. In addition, we appreciate that you will refer to the previous cost study on increasing cost and cost estimate report submitted when we left Viet Nam, and the exchange rate used for the detailed design is 127 JPY and 13,950VND against 1 USD(July 1999).

Thank you for your kind cooperation on the above.

Koji ENOMOTO

Team Leader, JICA Study Team

c.c. - Mr. Nguyen Xuan Hiep

Manager, Bridge Project Management Division

- File

attached: The copy of the letter of representative's request



Nippon Koei Co., Ltd. Consulting Administration International Division  
Registered in England and Japan No. 958024  
Registered Office: 2-5 Kojimachi, Chiyoda-ku, Tokyo



1US\$ = 127 JP Yen = 13,950 VND

Category	Name	Package 1 (JP Yen)	Package 2 (JP Yen)	Package 3 (JP Yen)
1	General	349,000,000	2,067,000,000	374,000,000
2	Site clearing	11,000,000	0	21,000,000
3	Earth Works & Slope Protection	738,000,000	22,000,000	1,059,000,000
4	Drainage	21,000,000	0	24,000,000
5	Pavement	300,000,000	50,000,000	422,000,000
6	Concrete Works & Precast Concrete Works	2,464,000,000	14,115,000,000	3,259,000,000
7	Bridge Works	108,000,000	10,862,000,000	133,000,000
8	Electrical Services	449,000,000	167,000,000	507,000,000
9	Toll Collection	0	0	43,000,000
10	Miscellaneous	69,000,000	397,000,000	95,000,000
	Construction Cost (Each Package)	4,509,000,000	27,680,000,000	5,937,000,000
	Construction Cost		38,126,000,000	

1 US\$ = 127 JPY Yen = 13,950 VND

**CAN THO BRIDGE CONSTRUCTION PROJECT (SUMMARY OF UNIT PRICE.)**

Category	Name	Unit	Foreign currency (JP Yen)	Local currency (VND)	Combined total price (VND)	Unit price (JP Yen)	Combined total price (JP Yen)
1	General						
1	Mobilization						
1	(1) Allow for all charges relating to the mobilization of all plant, other equipment and site establishment of the Works, exclude for Pre-casting Box girder.	LS	266,103,529	24,493,900,570	53,723,272,832		489,093,595
1	(2) Allow for all charges relating to the demobilization and removal of all plant, other equipment and site establishment of the Works, exclude for Pre-casting Box girder.	LS	133,588,010	0	14,673,643,573		133,588,010
1	(11) Site Preparation of Temporarily Yard A	LS	0	19,671,372,181	19,671,372,181		179,087,044
1	(12) Site Preparation of Temporarily Yard B	LS	211,483,647	81,489,514,572	104,719,411,213		953,359,514
1	(13) Site Preparation of Temporarily Yard C	LS	0	12,220,543,394	12,220,543,394		111,255,126
1	Maintenance of Traffic						
1	(1) Control and protection of vehicle traffic including watching, lighting, traffic signals & flags in accordance with all requirements of any regulatory authority	LS	0	970,549,033	970,549,033		8,835,823
1	(2) Maintenance and protection of vessel traffic including watching, lighting, navigation buoys & flags in accordance with all requirements of any regulatory authority	LS	33,955,099	2,636,822	3,732,350,413		33,979,104
1	Accommodation for the Engineer's Staff						
1	(1) Construction & Maintenance of Accommodation for Engineer	LS	0	9,226,170,031	9,226,170,031		83,994,523
1	(2) Provide & Maintain Engineer's vehicles including drivers	LS	18,138,407	1,363,959,626	3,356,327,997		30,555,818
1	(3) Establish the Engineer's office including all specified furniture, fittings & equipment including telephones, set	LS	0	759,092,350	759,092,350		6,910,733
1	(4) Maintain the Engineer's office including all specified furniture, fittings, equipment, telephones and cleaning and guarding	LS	0	351,185,505	351,185,505		3,197,173
1	(5) Working in and with, Existing water flows	LS	0	1,547,244,967	1,547,244,967		14,086,029
1	(7) Contractor's Services During Execution of the Works	LS	0	412,285,275	412,285,275		3,753,421
1	Temporary Works						
1	(3) Provision and maintenance of the Contractor's river and road traffic management plan	LS	0	17,375,563,717	17,375,563,717		158,186,136
1	(4) Provision and maintenance of the Construction Temporarily Bridges during construction at the rivers, excluding Hau River.	LS	82,104,043	9,199,622,176	18,218,137,090		165,856,875
1	(5) Provision and maintenance of the Construction Temporarily Bridges during construction at Hau River.	LS	198,630,326	17,720,096,935	39,528,152,479		359,953,073
2	Site clearing						
2	(1) Site Clearing and Demolition						
2	(1) Site Clearing and Demolition ( Rice Field )	m2	0	1,757	1,757		16
2	(2) Removal of Existing Tree (More than 50 trees/100m2)	m2	0	4,097	4,097		37
3	Earth Works & Slope Protection						
3	Embankment & Removal Material						
3	(1) Sand Blanket (±800mm)	m2	0	37,741	37,741		344
3	(2) Supply, place, compact & trim sand fill to embankment more than 1.05 m below pavement surface level	m3	0	34,161	34,161		311
3	(3) Supply, place, compact & trim sand fill to embankment less than 1.05 m below pavement surface level (Sub-grade)	m3	0	55,108	55,108		502
3	(4) Supply, place, compact & trim sand fill to Preloading embankment more than 2.0m over bottom of sub-grade level	m3	0	34,161	34,161		311
3	(5) Supply and place sand fill as Surcharge to embankment, more than 2.0m over bottom of sub-grade level	m3	0	34,161	34,161		311

1 US\$ = 127 JP Yen = 13,950 VND

Category	Name	Unit	Unit price		Combined total price (VND)	Unit price		Combined total price (JP Yen)
			Local currency (VND)	Foreign currency (JP Yen)		Local currency (VND)	Foreign currency (JP Yen)	
3 1 (6)	Removal Pre-loading Material	m3	18,450	0	18,450	168		
3 1 (7)	Removal SurchARGE Material	m3	17,343	0	17,343	158		
3 2	Slope protection	m2	9,716	0	9,716	88		
3 2 (1)	Supply, place, compact & trim Clay material fill to side slope. (I=50cm)	m2	6,678	0	6,678	61		
3 2 (2)	Trim side slopes by bulldozer	m2	57,281	0	57,281	521		
3 2 (3)	Studding	m2	336,620	0	336,620	3,065		
3 2 (5)	Masonry stone slope protection	m2	336,620	0	336,620	3,065		
3 2 (6)	Masonry stone slope protection to side berms	m	948,989	792	948,989	9,050		
3 2 (7)	Footing for masonry stone slope protection							
3 3	Soft ground Treatment							
3 3 (1)	Prefabricated Vertical Drain (PVD)	m	6,989	55	6,989	64		
3 3 (2)	Establishment & measurement for Soft Ground Treatment		2,666,156,985	24,272,540	2,666,156,985	24,272,540		
3 4	Structure Excavation & Backfilling							
3 4 (1)	Excavation for structures in any material over the underground water level (in land)	m3	16,605	0	16,605	151		
3 4 (2)	Excavation for structures in any material below the underground water level (in land)	m3	17,990	0	17,990	164		
3 4 (3)	Structure excavation in river	m3	566,623	2,290	566,623	5,159		
3 4 (4)	Backfill to structures	m3	65,413	24	65,413	596		
4	DRAINAGE							
4 1	R.C. Pipe	m	280,090	104	280,090	2,654		
4 1 (1)	R.C. Pipe, D=400mm	m	370,142	162	370,142	3,531		
4 1 (2)	R.C. Pipe, D=500mm							
4 2	Side Ditch							
4 2 (1)	U-Shaped side ditch (500*500)	m	1,862,255	754	1,862,255	17,708		
4 2 (2)	U-Shaped side ditch (500*1000)	m	1,862,255	754	1,862,255	17,708		
4 2 (3)	U-Shaped side ditch (400*475)	m	1,862,255	754	1,862,255	17,708		
4 3	Catch Basin							
4 3 (1)	Catch Basin Type A	Each	85,550,575	1,982	85,550,575	780,830		
4 3 (2)	Catch Basin Type B	Each	85,566,561	2,036	85,566,561	781,929		
5	Pavement							
5 1	Base course & Sub-base course							
5 1 (1)	Supply, place & compact Subbase course (I=300mm)	m3	77,287	0	77,287	704		
5 1 (2)	Supply, place & compact Base course (I=300mm)	m3	77,784	0	77,784	708		
5 2	Coat							
5 2 (1)	Bituminous prime coat (grade MC-70 or RC-250)	m2	8,225	0	8,225	75		
5 2 (2)	Bituminous tack coat (grade RC-250)	m2	2,296	0	2,296	21		

Category	Name	Unit	Unit price		Combined total price (VND)	Unit price		Combined total price (JP Yen)
			Local currency (VND)	Foreign currency (JP Yen)		Local currency (VND)	Foreign currency (JP Yen)	
3 1 (6)	Removal Pre-loading Material	m3	18,450	0	18,450	168		
3 1 (7)	Removal SurchARGE Material	m3	17,343	0	17,343	158		
3 2	Slope protection	m2	9,716	0	9,716	88		
3 2 (1)	Supply, place, compact & trim Clay material fill to side slope. (I=50cm)	m2	6,678	0	6,678	61		
3 2 (2)	Trim side slopes by bulldozer	m2	57,281	0	57,281	521		
3 2 (3)	Studding	m2	336,620	0	336,620	3,065		
3 2 (5)	Masonry stone slope protection	m2	336,620	0	336,620	3,065		
3 2 (6)	Masonry stone slope protection to side berms	m	948,989	792	948,989	9,050		
3 2 (7)	Footing for masonry stone slope protection							
3 3	Soft ground Treatment							
3 3 (1)	Prefabricated Vertical Drain (PVD)	m	6,989	55	6,989	64		
3 3 (2)	Establishment & measurement for Soft Ground Treatment		2,666,156,985	24,272,540	2,666,156,985	24,272,540		
3 4	Structure Excavation & Backfilling							
3 4 (1)	Excavation for structures in any material over the underground water level (in land)	m3	16,605	0	16,605	151		
3 4 (2)	Excavation for structures in any material below the underground water level (in land)	m3	17,990	0	17,990	164		
3 4 (3)	Structure excavation in river	m3	566,623	2,290	566,623	5,159		
3 4 (4)	Backfill to structures	m3	65,413	24	65,413	596		
4	DRAINAGE							
4 1	R.C. Pipe	m	280,090	104	280,090	2,654		
4 1 (1)	R.C. Pipe, D=400mm	m	370,142	162	370,142	3,531		
4 1 (2)	R.C. Pipe, D=500mm							
4 2	Side Ditch							
4 2 (1)	U-Shaped side ditch (500*500)	m	1,862,255	754	1,862,255	17,708		
4 2 (2)	U-Shaped side ditch (500*1000)	m	1,862,255	754	1,862,255	17,708		
4 2 (3)	U-Shaped side ditch (400*475)	m	1,862,255	754	1,862,255	17,708		
4 3	Catch Basin							
4 3 (1)	Catch Basin Type A	Each	85,550,575	1,982	85,550,575	780,830		
4 3 (2)	Catch Basin Type B	Each	85,566,561	2,036	85,566,561	781,929		
5	Pavement							
5 1	Base course & Sub-base course							
5 1 (1)	Supply, place & compact Subbase course (I=300mm)	m3	77,287	0	77,287	704		
5 1 (2)	Supply, place & compact Base course (I=300mm)	m3	77,784	0	77,784	708		
5 2	Coat							
5 2 (1)	Bituminous prime coat (grade MC-70 or RC-250)	m2	8,225	0	8,225	75		
5 2 (2)	Bituminous tack coat (grade RC-250)	m2	2,296	0	2,296	21		

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CAN THO BRIDGE CONSTRUCTION PROJECT (SUMMARY OF UNIT PRICE.)

Category	Name	Unit	Unit price		Combined total price (VND)	Unit price Combined total price (JP Yen)
			Foreign currency (JP Yen)	Local currency (VND)		
5 2	(3) Waterproofing t=5mm	m <sup>2</sup>	54	2,783	8,680	79
5 2	(4) Bound layer for metal bridge	m <sup>2</sup>	259	1,486	29,927	272
5 3	Asphalt concrete					
5 3	(1) Asphalt concrete binder course (t=100mm)	m <sup>2</sup>	264	66,928	95,953	874
5 3	(2) Guss Asphalt concrete course for metal bridge (t=70mm)	m <sup>2</sup>	1,028	47,988	160,855	1,464
5 3	(3) Asphalt concrete surface course (t=50mm)	m <sup>2</sup>	132	41,271	55,284	508
5 3	(4) Asphalt concrete surface course (t=70mm) for concrete bridge	m <sup>2</sup>	185	56,836	77,157	702
6	Concrete Works & Precast Concrete Works					
6 1	Concrete					
6 1	(1) Concrete, Class A (f <sub>c</sub> =50Mpa)	m <sup>3</sup>	2,775	1,041,654	1,346,518	12,259
6 1	(2) Concrete, Class B-1 (f <sub>c</sub> =40Mpa)	m <sup>3</sup>	36,983	1,261,633	5,323,941	48,469
6 1	(3) Concrete, Class B-2 (f <sub>c</sub> =40Mpa)	m <sup>3</sup>	266,188	1,227,927	30,466,691	277,367
6 1	(4) Concrete, Class C (f <sub>c</sub> =35Mpa)	m <sup>3</sup>	10,758	962,839	2,144,570	19,524
6 1	(5) Concrete, Class D-1 (f <sub>c</sub> =30Mpa)	m <sup>3</sup>	4,086	795,599	1,184,405	10,783
6 1	(6) Concrete, Class D-2 (f <sub>c</sub> =30Mpa)	m <sup>3</sup>	5,165	808,114	1,375,464	12,522
6 1	(8) Concrete, Class E (f <sub>c</sub> =24Mpa)	m <sup>3</sup>	7,348	1,009,404	1,816,503	16,537
6 1	(9) Concrete, Class F (f <sub>c</sub> =15Mpa)	m <sup>3</sup>	2,893	635,075	952,808	8,674
6 2	Structure Steel Bars & Prestressing Tendon					
6 2	(1) Reinforcing steel bars	tonne	1,016	5,828,817	5,940,471	54,082
6 2	(2) Longitudinal inner Prestressing tendons at Election for Minor Bridges	tonne	352,424	7,141,422	45,852,538	417,439
6 2	(3) Longitudinal External Prestressing tendons, after the Election completed for Minor Bridges	tonne	422,365	7,786,889	54,180,527	493,256
6 2	(4) Crossing inner Prestressing tendons A, for Minor Bridges	tonne	768,340	7,322,293	91,718,702	835,902
6 2	(5) Crossing inner Prestressing tendons B, for Minor Bridges	tonne	768,340	7,322,293	91,718,702	835,902
6 3	Precast I-Girder					
6 3	(1) Precast prestressed I-Girder, span 40.0m	Each	4,199,998	97,248,246	558,586,567	5,085,340
6 3	(2) Precast prestressed I-Girder, span 37.00m Height 1.85m	Each	3,134,998	82,534,483	426,890,510	3,886,387
6 3	(3) Precast prestressed I-Girder, span 31.00m Height 1.85m	Each	2,379,605	56,950,707	340,301,026	3,098,081
6 3	(4) Precast prestressed I-Girder, span 31.00m Height 1.65m	Each	2,282,142	51,081,266	301,757,469	2,747,183
6 3	(5) Precast prestressed I-Girder, span 28.00m Height 1.65m	Each	1,988,399	44,712,634	263,123,438	2,395,461
6 3	(6) Precast prestressed I-Girder, span 25.00m Height 1.65m	Each	1,694,309	40,331,137	226,460,317	2,061,682
6 3	(7) Precast prestressed I-Girder, span 25.00m Height 1.45m	Each	1,991,911	38,928,143	257,724,700	2,346,311
6 3	(8) Precast concrete Slabs (Class C) between girders t=80mm	m <sup>2</sup>	225	1,803,998	1,828,730	16,649
6 4	Concrete Pile					
6 4	(1) Bored piles 3000mm dia Class C (f <sub>c</sub> =30Mpa), including reinforcement	m	562,062	14,287,350	76,025,622	692,133
6 4	(2) Bored piles 2000mm dia Class C (f <sub>c</sub> =30Mpa), including reinforcement, with permanent stand pipe	m	18,793	4,392,771	6,457,029	58,784
6 4	(3) Bored piles 1500mm dia Class C (f <sub>c</sub> =30Mpa), including reinforcement	m	15,259	2,338,770	4,014,890	36,551
6 4	(4) Bored piles 1200mm dia Class C (f <sub>c</sub> =30Mpa), including reinforcement	m	10,013	1,588,130	2,667,992	24,289
6 4	(5) Pile load test A ( for Bored piles 3000mm dia)	Each	35,953,415	0	3,949,213,692	35,953,415

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Category	Name	Unit	Foreign currency (JP Yen)	Local currency (VND)	Unit price (VND)	Combined total price (VND)	Unit price (JP Yen)	Combined total price (JP Yen)
6 4	(6) Pile total test B ( Exclude Bored piles, 300mm dia)	Each	27,203,516	0	2,988,102,724		27,203,516	
6 4	(8) Bored piles, 1500mm dia Class C (fc=30Mpa), including reinforcement, with permanent sand pipe	m	39,014	2,374,146	6,659,508		60,628	
6 5	Culvert-Pipe	m	3,557	4,679,127	5,069,790		46,155	
6 6	Culvert-Box	m	23,574	22,599,584	25,189,042		229,320	
6 6	(1) Culvert-Box, Type A-s (2.50*1.50)	m	29,648	27,358,389	30,615,034		278,718	
6 6	(2) Culvert-Box, Type A-d (2.50*1.50*2)	m	34,248	31,677,733	35,439,645		322,640	
6 6	(3) Culvert-Box, Type B-d (2.50*2.00*2)	m	37,545	28,425,719	32,549,792		296,331	
6 6	(4) Culvert-Box, Type C-s (3.00*3.20)	m	47,136	36,205,528	41,383,066		376,749	
6 6	(5) Culvert-Box, Type D-s (3.00*3.50)	m	51,122	38,787,419	44,402,831		404,241	
6 6	(6) Culvert-Box, Type E-s (3.00*3.80)	m	69,595	52,878,489	60,522,951		550,997	
6 6	(7) Culvert-Box, Type F-s (5.00*3.80)	m	73,306	53,952,659	62,004,745		564,488	
6 6	(8) Culvert-Box, Type H-s (5.00*4.50)	m	69,772	57,100,075	64,763,963		589,607	
6 6	(9) Culvert-Box, Type I-d (5.00*4.50*2)	m	101,007	75,278,467	86,373,288		786,337	
6 6	(10) Culvert-Box, Type I-s (6.50*4.50)	m	87,800	63,135,249	72,779,439		662,580	
7	Bridge Works							
7 1	Structure Steel Works	tonne		56,448,071	56,448,071		513,900	
7 1	(1) Steel Segment Fabrication	Each	1,380,720	8,329,841,950	8,481,503,678		77,215,123	
7 1	(2) Steel & PC Composite Segment Fabrication	tonne	66,063	55,824	7,312,374		66,571	
7 1	(3) Steel Segment Erection	Each	17,388,566	9,695,536	1,919,699,433		17,476,834	
7 1	(4) Composite Segment Erection							
7 2	Superstructure, Prestressed Concrete Box Girder							
7 2	(1) Fabrication of PC Segment for Main Bridge	Each	16,656,502	190,367,165	2,019,959,327		18,389,594	
7 2	(2) Erection of PC Segment for Main Bridge at Pylon	Each	17,913,048	9,235,909	1,910,944,718		17,397,131	
7 2	(3) Erection of PC Segment for Main Bridge excluding at Pylons	Each	9,631,995	6,434,091	1,064,436,692		9,690,571	
7 2	(4) Longitudinal liner Prestressing tendons at Erection	tonne	1,063,754	2,704,651	119,550,052		1,088,377	
7 3	Stay Cable Installation for Main Bridge							
7 3	(1) Stay Cable Installation	tonne	851,338	373,957	93,887,098		854,743	
7 4	Bearing Pad							
7 4	(1) Bearing Pad with accessories, Type 1 (600*300*57) (I-girder)	No	45,691	82,178	5,100,939		46,439	
7 4	(2) Bearing Pad with accessories, Type 2 (500*250*50) (I-girder)	No	31,746	82,178	3,569,239		32,494	
7 4	(3) Bearing Pad with accessories, Type 3 (700*350*50) (Hollow Slab)	No	62,305	82,178	6,925,942		63,053	
7 4	(4) Bearing Pad with accessories, Type 4 (700*350*52) (Hollow Slab)	No	62,305	82,178	6,925,942		63,053	
7 4	(5) Bearing Pad with accessories, Type 5 (800*600*52) (Hollow Slab)	No	71,206	82,178	7,903,623		71,954	
7 4	(6) Bearing Pad with accessories, Type 6 (1500*1400*214) (PC Box)	No	1,587,474	1,982,331	176,354,528		1,605,322	
7 4	(7) Bearing Pad with accessories, Type 7 (1410*1410*214) (PC Box)	No	1,505,884	1,982,331	167,392,456		1,523,931	

Category	Name	Unit	Foreign currency (JP Yen)	Local currency (VND)	Unit price (VND)	Combined total price (VND)	Unit price (JP Yen)	Combined total price (JP Yen)
6 4	(6) Pile total test B ( Exclude Bored piles, 300mm dia)	Each	27,203,516	0	2,988,102,724		27,203,516	
6 4	(8) Bored piles, 1500mm dia Class C (fc=30Mpa), including reinforcement, with permanent sand pipe	m	39,014	2,374,146	6,659,508		60,628	
6 5	Culvert-Pipe	m	3,557	4,679,127	5,069,790		46,155	
6 6	Culvert-Box	m	23,574	22,599,584	25,189,042		229,320	
6 6	(1) Culvert-Box, Type A-s (2.50*1.50)	m	29,648	27,358,389	30,615,034		278,718	
6 6	(2) Culvert-Box, Type A-d (2.50*1.50*2)	m	34,248	31,677,733	35,439,645		322,640	
6 6	(3) Culvert-Box, Type B-d (2.50*2.00*2)	m	37,545	28,425,719	32,549,792		296,331	
6 6	(4) Culvert-Box, Type C-s (3.00*3.20)	m	47,136	36,205,528	41,383,066		376,749	
6 6	(5) Culvert-Box, Type D-s (3.00*3.50)	m	51,122	38,787,419	44,402,831		404,241	
6 6	(6) Culvert-Box, Type E-s (3.00*3.80)	m	69,595	52,878,489	60,522,951		550,997	
6 6	(7) Culvert-Box, Type F-s (5.00*3.80)	m	73,306	53,952,659	62,004,745		564,488	
6 6	(8) Culvert-Box, Type H-s (5.00*4.50)	m	69,772	57,100,075	64,763,963		589,607	
6 6	(9) Culvert-Box, Type I-d (5.00*4.50*2)	m	101,007	75,278,467	86,373,288		786,337	
6 6	(10) Culvert-Box, Type I-s (6.50*4.50)	m	87,800	63,135,249	72,779,439		662,580	
7	Bridge Works							
7 1	Structure Steel Works	tonne		56,448,071	56,448,071		513,900	
7 1	(1) Steel Segment Fabrication	Each	1,380,720	8,329,841,950	8,481,503,678		77,215,123	
7 1	(2) Steel & PC Composite Segment Fabrication	tonne	66,063	55,824	7,312,374		66,571	
7 1	(3) Steel Segment Erection	Each	17,388,566	9,695,536	1,919,699,433		17,476,834	
7 1	(4) Composite Segment Erection							
7 2	Superstructure, Prestressed Concrete Box Girder							
7 2	(1) Fabrication of PC Segment for Main Bridge	Each	16,656,502	190,367,165	2,019,959,327		18,389,594	
7 2	(2) Erection of PC Segment for Main Bridge at Pylon	Each	17,913,048	9,235,909	1,910,944,718		17,397,131	
7 2	(3) Erection of PC Segment for Main Bridge excluding at Pylons	Each	9,631,995	6,434,091	1,064,436,692		9,690,571	
7 2	(4) Longitudinal liner Prestressing tendons at Erection	tonne	1,063,754	2,704,651	119,550,052		1,088,377	
7 3	Stay Cable Installation for Main Bridge							
7 3	(1) Stay Cable Installation	tonne	851,338	373,957	93,887,098		854,743	
7 4	Bearing Pad							
7 4	(1) Bearing Pad with accessories, Type 1 (600*300*57) (I-girder)	No	45,691	82,178	5,100,939		46,439	
7 4	(2) Bearing Pad with accessories, Type 2 (500*250*50) (I-girder)	No	31,746	82,178	3,569,239		32,494	
7 4	(3) Bearing Pad with accessories, Type 3 (700*350*50) (Hollow Slab)	No	62,305	82,178	6,925,942		63,053	
7 4	(4) Bearing Pad with accessories, Type 4 (700*350*52) (Hollow Slab)	No	62,305	82,178	6,925,942		63,053	
7 4	(5) Bearing Pad with accessories, Type 5 (800*600*52) (Hollow Slab)	No	71,206	82,178	7,903,623		71,954	
7 4	(6) Bearing Pad with accessories, Type 6 (1500*1400*214) (PC Box)	No	1,587,474	1,982,331	176,354,528		1,605,322	
7 4	(7) Bearing Pad with accessories, Type 7 (1410*1410*214) (PC Box)	No	1,505,884	1,982,331	167,392,456		1,523,931	

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CAN THO BRIDGE CONSTRUCTION PROJECT (SUMMARY OF UNIT PRICE.)

Category	Name	Unit	Unit price			Combined total price (VND)	Combined total price (JP Yen)
			Foreign currency (JP Yen)	Local currency (VND)			
7	4 (8) Bearing Pad with accessories, Type 8 (660*560*125) (PC Box side span)	No	183,949	521,757	20,727,156	188,699	
7	4 (9) Bearing Pad with accessories, Type 9 (L-girder)(460*460*120)	No	191,553	79,110	21,119,772	192,273	
7	4 (10) Bearing Pad with accessories, Type 12 (PC Box)(on pier)	No	2,864,007	1,982,331	316,572,082	2,882,054	
7	4 (11) Bearing Pad with accessories, Type 13 (PC Box)(side span)	No	301,601	445,759	33,574,333	305,659	
7	4 (12) Bearing Pad with accessories, Type 15 (Stay Cable)(on pier, side pier)	No	21,930,545	730,527	2,409,636,831	21,937,196	
7	5 Bridge Utility						
7	5 (1) Bridge Railing Type-A	m	0	1,618,228	1,618,228	14,732	
7	5 (2) Bridge Railing Type-B	m	0	1,165,314	1,165,314	10,609	
7	5 (3) Expansion Joint, Type A (300mm)	m	1,055,042	157,027	116,045,507	1,056,472	
7	5 (4) Expansion Joint, Type B (100mm)	m	221,955	291,365	24,669,227	224,587	
7	5 (5) Expansion Joint, Type C (50mm)	m	116,808	291,365	13,121,818	119,460	
7	6 Drain for Bridge						
7	6 (1) Drain Pipe, 200mm dia. with Fittings and Supports (PVC)	m	2,926	11,993	333,395	3,035	
7	6 (2) Drain Pipe, 165mm dia. with Fittings and Supports (PVC)	m	1,951	13,721	227,989	2,076	
7	6 (3) Deck drain with Accessories, Type 1	Each	13,106	15,266	1,454,832	13,245	
7	6 (4) Deck drain with Accessories, Type 2	Each	7,063	9,597	785,406	7,150	
8	Electrical Services						
8	1 Electric Works						
8	1 1 Electric works (Section 1)	LS	0	49,283,127,040	49,283,127,040	448,670,762	
8	1 2 Electric works (Section 2)	LS	0	18,382,836,260	18,382,836,260	167,356,287	
8	1 3 Electric works (Section 3)	LS	0	55,698,839,023	55,698,839,023	507,079,056	
9	Toll Collection						
9	1 Toll Collection Systems						
9	1 (1) Toll Collection Booths (Buildings)	LS	843,537	1,378,500,172	1,471,156,421	13,393,324	
9	1 (2) Concrete Pavement	m2	424	386,801	433,425	3,946	
9	1 (3) Maintenance Office (Building)	LS	0	2,380,887,586	2,380,887,586	21,675,464	
	MISCELLANEOUS						
10	2 Vehicle Guardrail						
10	2 (1) Vehicle Guardrail (Type-A)	m	0	398,208	398,208	3,625	
10	2 (2) Vehicle Guardrail (Type-B)	m	0	398,208	398,208	3,625	
10	3 Warning Signs						
10	3 (1) Regulatory and Warning Signs, Type-1 Pole	Each	0	1,442,575	1,442,575	13,133	
10	3 (2) Regulatory and Warning Signs, Type-2 Pole	Each	0	1,325,768	1,325,768	12,070	
10	3 (3) Regulatory and Warning Signs, Type-3 Pole	Each	0	1,179,758	1,179,758	10,740	
10	3 (4) Regulatory and Warning Signs, Type-4 Pole	Each	0	1,013,307	1,013,307	9,225	
10	3 (5) Precast Concrete Kilometer Posts	Each	285	386,609	417,884	3,804	

1 US\$ = 127 JP Yen = 13,950 VND

CAN THO BRIDGE CONSTRUCTION PROJECT (SUMMARY OF UNIT PRICE.)

Category	Name	Unit	Unit price		Combined total price (VND)	Unit price (JP Yen)	Combined total price (JP Yen)
			Foreign currency (JP Yen)	Local currency (VND)			
10 4	Traffic Control Utility						
10 4 (1)	Road marking, Type-A - General Application	m2	0	122,117	122,117		1,112
10 4 (2)	Delimitator (for Road Section)	Each	4,148	520,643	976,319		8,888
10 4 (3)	Concrete Curb Type-A (for Interchange, Service Area)	m	91	178,041	188,032		1,712
10 4 (4)	Concrete Curb Type-B (for Interchange, Service Area)	m	118	202,462	215,466		1,962
10 4 (5)	Concrete Barrier, Type A (Road section)	m	604	491,603	557,931		5,079
10 4 (6)	Concrete Barrier, Type B (Bridge section)	m	604	491,603	557,931		5,079
10 5	Landscaping Works						
10 5 (1)	Interlocking Concrete Paving (for Service Area)	m2	0	91,405	91,405		832
10 6	Anti thunderbolt system						
10 6 1	Anti thunderbolt system	set	0	16,811,749	16,811,749		153,053
10 7	Navigation (Obstruction Lights System)						
10 7 1	Navigation (Obstruction Lights System)	set	27,667,076	2,498,517	3,041,519,814		27,689,822
10 8	Navigation Light						
10 8 1	Navigation Light	set	5,475,362	140,542	601,568,065		5,476,641
10 8 2	Permanent Navigation Marker Buoys	set	9,344,617	404,300	1,026,840,607		9,348,298
10 9	Tie down cable system during construction						
10 9 1	Tie down cable system	LS	0	8,788,860,881	8,788,860,881		80,013,285
10 10	Revetment works						
10 10 1	Revetment works	m2	927	340,095	441,925		4,023
10 11	Dumper for stay cable						
10 11 1	Dumper	No	840,128	658,823	92,940,634		846,126

SUMMARY OF UNIT PRICE OF F/S AND B/D

Component	Quantities			Unit Price									
	Unit	F/S	B/D	F/S		B/D		Local Currency Portion (Unit VND)	Foreign Exchange Portion (Unit USD)	Combined Total (Unit VND)	Local Currency Portion (Unit VND)	Foreign Exchange Portion (Unit USD)	Combined Total (Unit VND)
					Local Currency Portion (Unit VND)	Foreign Exchange Portion (Unit USD)	Local Currency Portion (Unit VND)						
<b>1. Mobilization &amp; Demobilization</b>													
Mobilization	L.S.	1.00	1.00	16,936,545,000	3,419,116.51	600,323,645	3,462,174.18	21,745,895,000	65,286,051,000	640,357,025			
UXO Cost	m2	1,452,200.00	1,452,200.00	4,000	0.00	39							
Waterway Traffic Maintenance	L.S.	1.00	1.00	13,546,559,000	0.00	132,850,424	0.00	13,546,559,000	13,546,559,000	132,850,424			
Demobilization	L.S.	1.00	1.00	16,936,545,000	3,419,116.51	600,323,645	3,462,174.18	21,745,895,000	65,286,051,000	640,357,025			
<b>2. Main Bridge Portion</b>													
<b>1) Foundation Construction</b>													
Caisson (φ=10m)	m	1,110.00	1,470.00	29,561,000	10,412,423	161,402,000	13,327,940	37,858,000	210,414,000	2,183,716			
Cast-in-Place Concrete Pile (φ=1.5m)	m	1,726.00	2,890.00	1,440,000	40.38	1,863,000	19,251						
Cast-in-Place Concrete Pile (φ=2.0m)	m	0.00	3,240.00	2,561,000	71.79	3,491,000	34,236						
Steel Pipe Pile (φ=1.5m)	m	1,960.00	0.00	169,000	845.11	1,133,000	109,181						
<b>2) Substructure Construction</b>													
Concrete to Substructure on the Ground	m3	14,468.10	17,087.20	816,000	6.69	903,000	8,656						
Concrete to Substructure on the Waterway	m3	14,969.80	17,413.95	743,000	6.18	825,000	8,091						
Processing & Fabrication of Rein.Steel	tf	2,999.70	3,492.16	6,265,000	3.11	6,265,000	62,039						
Excavation (Soil, by Bucket Digger)	m3	27,049.80	2,042.50	5,000	0.00	5,000	49						
Earthfilling for Substructure	m3	12,772.10	1,682.50	201,000	0.16	221,000	216						
<b>3) Superstructure Construction</b>													
PC Precast Block Production (Main Bridge)	block	315.00	345.00	80,309,000	16,997.08	306,321,000	2,946,214						
PC Precast Block Erection (Main Bridge)	block	315.00	345.00	22,416,000	44,877.51	609,580,000	5,919,270						
Steel Girder Processing & Fabrication	tf	2,461.00	2,510.00	6,408,000	5,310.30	75,176,000	737,237						
PC Stay Cable Installation	tf	1,366.20	1,740.00	9,879,800	9,879.80	135,096,000	1,326,641						
Tower Construction (Lower Portion)	m3	7,350.00	7,350.00	1,697,100	26.34	1,996,000	19,594						
Tower Construction (Upper Portion)	m3	12,540.00	13,519.69	4,497,000	641.18	12,600,000	125,529						
Waterproofing Work	m2	21,320.00	22,345.00	144,000	1.47	165,000	1,598						
Guss Asphalt Pavement	m2	4,100.00	4,100.00	66	0.66	62,000	696						
Asphalt Pavement for PC Box Girder	m2	17,220.00	18,345.00	125,000	1.95	150,000	1,471						
<b>4) Bridge Miscellaneous</b>													
Navigational Signals for Vessels	each	12.00	12.00	10,696.99	10,696.99	149,882,000	1,469,885						
Navigational Signals for Airplanes	each	12.00	12.00	10,696.99	10,696.99	149,882,000	1,469,885						
<b>5) Riverbank Protection Works</b>													
Cobble Stone Installation	L.S.	1.00	1.00	89,259,340	89,259.34	1,064,115,000	1,481,564.04	1,596,173,000	20,779,319,000	203,281,718			
<b>6) Temporary Works</b>													
Temporary Works for Open Caisson	L.S.	1.00	1.00	1,790,624.15	1,790,624.15	24,135,762,000	236,698,206	5,190,072.45	72,407,246,000	710,094,619			
Temporary Support at Tower	each	2.00	2.00	6,687.85	6,687.85	174,618,000	1,712,170	162,337,000	349,235,000	3,424,930			
<b>7) Toll Collection System</b>													
Toll Collection System	L.S.	1.00	1.00	18,130,000,000	0.00	18,130,000,000	0.00	18,130,000,000	18,130,000,000	177,800,000			

Note: Exchange Rate: F/S & B/D Stage: 127 JPY = 12,950 VND = 1 USD (Sept 1998)

D/D Stage: 127 JPY = 13,950 VND = 1 USD (July 1999)



SUMMARY OF UNIT PRICE OF F/S AND B/D

Component	Quantities			Unit Price						
	Unit	F/S	B/D	F/S		B/D		B/D		
				Foreign Exchange Portion (Unit: USD)	Local Currency Portion (Unit: VND)	Foreign Exchange Portion (Unit: USD)	Local Currency Portion (Unit: VND)	Foreign Exchange Portion (Unit: USD)	Local Currency Portion (Unit: VND)	
<b>3. Approach Bridge Portion (Vinh Long side)</b>										
<b>1) Foundation Construction</b>										
Cast-in-Place Concrete Pile (φ=1.5m)	m	5,720.00	6,840.00		40.66	2,901,000		3,426,000	33,618	
Concrete to Substructure on the Ground	m <sup>3</sup>	3,225.70	7,941.01		7.72	933,000		1,033,000	10,131	
Processing & Fabrication of Rein.Steel	tf	333.40	797.13		0.00	6,338,000		6,238,000	61,176	
Excavation (Soil) by Bucket Digger	m <sup>3</sup>	5,720.00	9,198.25		0.00	5,000		5,000	49	
Earthfilling for Substructure	m <sup>3</sup>	5,166.10	8,041.34		0.18	20,000		22,000	216	
<b>2) Superstructure Construction</b>										
PC Precast Block Production	block	164.00			16,100.96	72,332,000		279,448,000	2,742,494	
PC Precast Block Erection	block	168.00			27,516.35	16,733,000		373,070,000	3,658,679	
PC Composite Girder Production & Erection	beam	108.00			20,938.92	48,998,000		358,995,000	3,530,646	
Construction of D.A.K Slab & Cross Beams	m <sup>3</sup>	5,300.42			74.94	3,650,000		4,620,000	94,343	
Waterproofing Work	m <sup>2</sup>	7,125.00			1.48	145,000		164,000	1,608	
Asphalt Pavement	m <sup>2</sup>	7,125.00			1.98	136,000		151,000	1,481	
<b>4. Approach Bridge Portion (Can Tho side)</b>										
<b>1) Foundation Construction</b>										
1-1) Main Bridge ~ Cu Lao Lat										
Cast-in-Place Concrete Pile (φ=1.5m)	m	11,520.00	11,080.00		40.38	2,881,040		3,493,000	33,383	
Steel Pipe Pile Driving with Barge (φ=1.5m)	m	840.00	0.00		845.11	189,000		11,333,000	109,181	
Steel Pipe Pile Driving with Barge (φ=0.8m)	m	1,170.00	0.00		266.07	130,000		3,602,000	35,325	
1-2) Cu Lao Lat ~ Substream										
Steel Pipe Pile Driving with Barge (φ=1.5m)	m	3,880.00	0.00		845.11	189,000		11,333,000	109,181	
Steel Pipe Pile Driving with Barge (φ=0.8m)	m	2,340.00	0.00		266.07	130,000		3,602,000	35,325	
Cast-in-Place Concrete Pile (φ=1.5m)	m	0.00	2,200.00		40.38	2,881,000		3,493,000	33,383	
Cast-in-Place Concrete Pile (φ=2.0m)	m	0.00	2,530.00		71.79	5,121,000		6,051,000	59,242	
1-3) Substream ~ Can Tho side										
Steel Pipe Pile Driving with Barge (φ=0.8m)	m	1,170.00	0.00		266.07	130,000		3,602,000	35,325	
Cast-in-Place Concrete Pile (φ=1.5m)	m	1,400.00	1,170.00		40.38	2,881,000		3,493,000	33,383	
<b>2) Substructure Construction</b>										
2-1) Main Bridge ~ Cu Lao Lat										
Concrete to Substructure on the Ground	m <sup>3</sup>	5,618.10	6,577.00		7.97	941,000		1,045,000	10,229	
Concrete to Substructure on the Waterway	m <sup>3</sup>	1,097.40	1,234.58		12.49	833,000		1,015,000	9,954	
Processing & Fabrication of Rein.Steel	tf	634.00	732.76		0.00	6,238,000		6,238,000	61,176	
Excavation (Soil) by Bucket Digger	m <sup>3</sup>	11,293.70	15,343.83		0.00	5,000		5,000	49	
Earthfilling for Substructure	m <sup>3</sup>	4,393.80	5,212.71		0.28	36,000		40,000	392	
2-2) Cu Lao Lat ~ Substream										
Concrete to Substructure on the Waterway	m <sup>3</sup>	1,973.40	4,461.45		12.97	805,000		973,000	9,542	
Processing & Fabrication of Rein.Steel	tf	186.30	420.53		0.00	6,238,000		6,238,000	61,176	
Note: Exchange Rate: 127 JPY = 12,950 VND = 1 USD (Sept 1998) 127 JPY = 13,950 VND = 1 USD (July 1999)										

SUMMARY OF UNIT PRICE OF E/S AND B/D

Component	Quantities				Unit Price												
	Unit	F/S	B/D	B/D	F/S				B/D								
					Foreign Exchange Portion (Unit: USD)	Local Currency Portion (Unit: VND)	Combined Total (Unit: VND)	Foreign Exchange Portion (Unit: USD)	Local Currency Portion (Unit: VND)	Combined Total (Unit: VND)	Foreign Exchange Portion (Unit: VND)	Local Currency Portion (Unit: VND)	Combined Total (Unit: VND)				
2-3) Sub-rein~Can Tho side	m3	747.50	1,171.60		7.24	167,000	961,000	9424									
Concrete to Substructure on the Ground	m3	299.80	0.00		14.61	837,000	1,046,000	10,258									
Concrete to Substructure on the Waterway	m3	103.00	402.52		0.00	6,238,000	6,239,000	61,176									
Processing & Fabrication of Rein.Steel	t	1,392.00	2,181.76		0.00	5,000	5,000	49									
Excavation (Soil, by Bucket Digger)	m3	1,922.30	3,012.43		0.16	24,000	22,000	216									
Earthfilling for Substructure	m3																
3) Superstructure Construction																	
3-1) Main Bridge ~ Cu Lao Lat																	
PC Precast Block Production	block	432.00	0.00		16,008.96	72,332,000	279,648,000	2,742,494									
PC Precast Block Election	block	432.00	0.00		27,516.35	16,733,000	373,070,000	3,658,679									
PC Composite Girder Production & Election	beam		171.00		23,928.92	48,986,000	338,995,000	3,520,646									
Construction of Deck Slab & Cross Beams	m3	8,233.99	74.94		74.94	8,650,000	9,620,000	94,343									
Waterproofing Work	m2	18,450.00	15,580.00		1.47	144,000	163,000	1,599									
Asphalt Pavement for PC Box Girder	m2	18,450.00	15,580.00		1.95	125,000	150,000	1,471									
3-2) Cu Lao Lat ~ Substream																	
PC Precast Block Production	block	78.00	182.00		15,246.68	93,823,000	291,136,000	2,855,176									
PC Precast Block Election	block	78.00	237.00		27,516.35	16,733,000	373,070,000	3,658,679									
Waterproofing Work	m2	3,587.50	6,070.00		1.47	144,000	163,000	1,599									
Asphalt Pavement for PC Box Girder	m2	3,587.50	6,070.00		1.95	125,000	150,000	1,471									
3-3) Substream~Can Tho side																	
PC Precast Block Production	block	72.00	0.00		16,008.96	72,332,000	279,648,000	2,742,494									
PC Precast Block Election	block	72.00	0.00		27,516.35	16,733,000	373,070,000	3,658,679									
PC Composite Girder Production & Election	beam		18.00		23,928.92	48,986,000	338,995,000	3,520,646									
Construction of Deck Slab & Cross Beams	m3	8,233.99	866.74		74.94	8,650,000	9,620,000	94,343									
Waterproofing Work	m2	3,075.00	1,640.00		1.47	144,000	163,000	1,599									
Asphalt Pavement for PC Box Girder	m2	3,075.00	1,640.00		1.95	125,000	150,000	1,471									
5. Approach Road Portion (Vinh Long side)																	
1) Road Embankment																	
Earthfilling for Road Embankment	m3	516,526.90	596,560.75		0.00	7,000	7,000	69									
Surface Adjustment	m2	93,517.10	107,950.81		0.18	3,000	5,000	48									
2) Base Course & Subgrade																	
Subbase Course Filling	m2	98,139.00	113,032.37		0.26	83,000	87,000	853									
Surface Adjustment	m2	90,432.00	704,369.54		0.18	8,000	10,000	98									
Base Course Filling	m2	90,432.00	104,489.54		0.26	9,000	13,000	127									
3) Pavement																	
Binder Course	m2	84,780.00	57,865.20		0.41	183,000	188,000	1,844									
Surface Course	m2	84,780.00	57,865.20		0.41	20,000	25,000	256									
4) Slope Protection Works																	
Slope Jamming Work	m2	15,693.20	18,111.87		0.00	4,000	4,000	39									
Backfilling for Concrete Block	m3	2,845.10	9,065.94		0.00	112,000	112,000	1,098									
Permeable Sheet Installation	m2	15,693.20	18,111.87		5.78	10,000	85,000	834									
Slope Protection (Concrete Block)	m2	15,693.20	18,111.87		6.01	419,000	487,000	4,874									

Note: Exchange Rate: F/S & B/D Stage: 127 JPY = 12,950 VND = 1 USD (Sept.1998)  
 127 JPY = 13,950 VND = 1 USD (July 1999)

SUMMARY OF UNIT PRICE OF F/S AND B/D

Component	Quantities		Unit Price				Combined Total (Unit VND)	Combined Total (Unit JPY)	
	Unit	F/S	B/D	F/S		B/D			
				Foreign Exchange Portion (Unit USD)	Local Currency Portion (Unit VND)	Foreign Exchange Portion (Unit USD)			Local Currency Portion (Unit VND)
5) Road Miscellaneous									
Concrete Kerb Installation	m	4,334.00	0.00	0.00	64,000	64,000	628		
Concrete Median Installation	m	4,207.00	4,866.32	0.00	66,000	66,000	647		
Guard Railing Installation	m	3,754.00	4,333.40	35.77	18,000	352,000	3,452		
Pedestrian Guard Railing Installation	m	3,754.00	1,634	0.00	18,000	237,000	2,324		
6) Minor Bridges									
PC Box Girder Bridge	m2	6,152.50	10,930.32	344.89	4,065,000	8,551,000	83,859	4,085,000	
PC Hollow Slab Bridge	m2	2,317.60	2,317.60	232.96	4,398,000	7,415,000	72,719	4,398,000	
PC Composite I Beam	m2	4,635.50	3,785.63	232.96	4,398,000	7,415,000	72,719	4,398,000	
PC Slab Bridge	m2	3,637.00	1,637.00	124.29	6,495,000	8,105,000	79,485	6,495,000	
7) Culvert-Pipe (9 points, Total Length: 233m)	m	233.00	229.63	0.00	369,000	369,000	3,619		
8) Retaining Wall									
Type-1, H=3.0-8.0m	m	105.00	0.00	92.59	8,265,000	8,366,000	87,920		
Type-2, H=1.0-7.0m	m	35.00	0.00	46.21	7,157,000	7,253,000	76,053		
Type-2, H=3.0m	m	190.00	0.00	23.48	3,117,000	3,421,000	33,550		
9) Soft Ground Treatment									
Drainage Blanket Installation (t=0.5m)	m3	45,899.20	52,580.94	0.00	7,000	7,000	69		
Surcharge	m3	97,371.20	112,399.76	0.00	7,000	7,000	69		
Prefabricated Vertical Drainage	m	38,479.80	44,118.82	16.59	7,000	222,000	2,177		
10) Interchange									
Interchange (B.P.)	L.S.	0.00	1.00	0.00	0	0	0	1,236,400.00	
Interchange (NH No.54)	L.S.	0.00	1.00	0.00	0	0	0	1,414,000.00	
11) Infrastructure for Resettlement	L.S.	1.00	1.00	0.00	6,026,002.000	6,026,002.000	59,126,120	0.00	
6. Approach Road Portion (Can Tho side)									
1) Road Embankment									
Earthfilling for Road Embankment	m3	558,139.30	669,735.51	0.00	7,000	7,000	69		
Surface Adjustment	m2	132,214.40	158,699.31	0.18	3,000	5,000	49		
2) Base Course & Subgrade									
Subbase Course Filling	m2	62,627.90	75,149.70	0.26	81,000	87,000	853		
Surface Adjustment	m2	127,853.00	153,415.89	0.18	8,000	10,000	98		
Base Course Filling	m2	51,141.20	61,366.36	0.26	9,000	13,000	127		
3) Pavement									
Binder Course	m2	119,862.00	141,827.17	0.41	183,000	198,000	1,844		
Surface Course	m2	119,862.00	143,827.17	0.41	20,000	75,000	736		
4) Slope Protection Works									
Slope Tamping Work	m2	23,341.50	28,000.39	0.00	4,000	4,000	39		
Backfilling for Concrete Block	m3	11,670.80	14,001.36	0.00	112,000	112,000	1,098		
Permeable Sheet Installation	m2	23,341.50	28,008.39	5.78	10,000	85,000	834		
Slope Protection (Concrete Block)	m2	23,341.50	28,008.39	6.01	419,000	497,000	4,874		
5) Road Miscellaneous									
Concrete Kerb Installation	m	12,384.00	0.00	0.00	64,000	64,000	628		
Concrete Median Installation	m	6,300.00	7,439.63	0.00	66,000	66,000	647		
Guard Railing Installation	m	2,725.00	3,269.84	29.77	18,000	352,000	3,452		
Pedestrian Guard Railing Installation	m	2,725.00	1,634	16.94	18,000	237,000	2,324		

Note: Exchange Rate: 127 JPY = 12,950 VND = 1 USD (Sept.1998)  
 127 JPY = 13,950 VND = 1 USD (July 1999)

SUMMARY OF UNIT PRICE OF F/S AND B/D

Component	Quantities			Unit Price						
	Unit	F/S	B/D	F/S		B/D		B/D		
					Foreign Exchange Portion (Unit: USD)	Local Currency Portion (Unit: VND)	Foreign Exchange Portion (Unit: USD)	Local Currency Portion (Unit: VND)	Foreign Exchange Portion (Unit: USD)	Local Currency Portion (Unit: VND)
6) Minor bridges	total									
PC Box Girder Bridge	m2	0.00	4,924.92	344.89	4,085,000	8,551,000	83,859	4,085,000	8,551,000	83,859
PC Composite I Beam	m2	10,164.00	11,844.50	286.57	4,160,000	7,871,000	77,191	4,160,000	7,871,000	77,191
PC Slab Bridge	m2	462.00	0.00	131.94	10,628,000	12,237,000	120,988	10,628,000	12,237,000	120,988
7) Culvert-Pipe (5 points, Total Length: 129m)	m	129.00	370.25	0.00	369,000	369,000	3,619			
8) Retaining Wall	m									
Type-1, H=3.0-8.0m	m	330.00	0.00	52.59	8,265,000	8,866,000	87,529			
9) Soft Ground Treatment										
Drainage Blanket Installation (r=0.5m)	m3	115,306.30	136,360.61	0.00	7,000	7,000	69			
Surcharge	m3	112,977.40	13,486.70	0.00	7,000	7,000	69			
Prefabricated Vertical Drainage	m	19,902.50	23,861.80	16.59	7,000	222,000	2,177			
10) Interchange	L.S.	0.00	1.00	0.00	0.00	0.00	0.00	1,399,360.00	18,121,712,000.00	36,213,424,000.00
Interchange (NH No.91)	L.S.	1.00	1.00	0.00	6,029,002,000.00	6,029,002,000.00	59,126,120.00	0.00	55,618,049,000.00	55,618,049,000.00
11) Infrastructure for Resettlement										

Note: Exchange Rate: F/S & B/D Stage: 127 JPY = 13,950 VND = 1 USD (Sep. 1998)  
D/D Stage: 127 JPY = 13,950 VND = 1 USD (July 1999)

### Construction Cost Comparison (F/S & B/D)

	F/S	B/D	Unit: Japanese Yen Difference
1. Mobilization & Demobilization	1,390,670,820	1,470,537,580	79,866,760
2. Main Bridge Portion	13,253,665,346	16,361,251,147	3,107,585,801
3. Approach Bridge Portion (Vinh Long s	1,544,675,168	1,450,771,761	-93,903,407
4. Approach Bridge Portion (Can Tho sid	5,567,091,024	4,383,630,511	-1,183,460,513
5. Approach Road Portion (Vinh Long sic	1,840,285,154	3,472,807,331	1,632,522,177
6. Approach Road Portion (Can Tho side	1,807,228,927	3,414,627,542	1,607,398,615
<b>Total</b>	<b>25,403,616,439</b>	<b>30,553,625,872</b>	<b>5,150,009,433</b>

Note: Exchange Rate: F/S & B/D Stage: 127 JPY = 12,950 VND = 1 USD (Sept.1998)  
 D/D Stage: 127 JPY = 13,950 VND = 1 USD (July 1999)





COST COMPARISON BETWEEN F/S AND B/D

Component	Quantities		Unit Price								Amount								Difference (Unit: VND)			
	Unit	F/S	B/D	F/S				B/D				F/S				B/D						
				Foreign Exchange Portion (Unit: USD)	Local Currency Portion (Unit: VND)	Combined Total		Foreign Exchange Portion (Unit: USD)	Local Currency Portion (Unit: VND)	Combined Total		Foreign Exchange Portion (Unit: USD)	Local Currency Portion (Unit: VND)	Combined Total		Foreign Exchange Portion (Unit: USD)	Local Currency Portion (Unit: VND)	Combined Total				
<b>3. Approach Bridge Portion (Vinh Long side)</b>																						
<b>1) Foundation Construction</b>																						
Cast-in-Place Concrete Pile (φ=1.5m)	m	5,720.00	6,840.00	40.66	2,901,000	3,428,000	33,618						232,575.20	16,593,317,000	19,605,166,000	192,266,879	278,114.40	19,842,358,000	23,443,939,000	229,913,533	3,838,773,000	
<b>2) Substructure Construction</b>																						
Concrete to Substructure on the Ground	m3	3,225.70	7,941.01	7.72	933,000	1,033,000	10,131						24,902.40	3,008,000,000	3,330,516,000	32,662,497	61,304.60	7,405,226,000	8,199,121,000	80,408,368	4,668,575,000	
Processing & Fabrication of Rein.Steel	tf	323.80	797.13	0.00	6,238,000	6,238,000	61,176						0.00	2,019,869,000	2,019,869,000	19,808,754	0.00	4,972,509,000	4,972,509,000	48,765,146	2,952,640,000	
Excavation (Soil, by Bucket Diger)	m3	5,751.10	9,196.25	0.00	5,000	5,000	49						0.00	29,291,000	29,291,000	292,159	0.00	47,637,000	47,637,000	467,174	17,846,000	
Earthfilling for Substructure	m3	5,166.10	8,041.34	0.16	20,000	22,000	216						826.58	105,704,000	116,408,000	1,141,607	1,286.61	164,534,000	181,196,000	1,776,980	64,788,000	
<b>3) Superstructure Construction</b>																						
PC Precast Block Production	block	168.00			16,008.96	72,332,000	279,648,000	2,742,494					2,689,505.28	12,151,770,000	46,980,863,000	460,738,965	0.00	0	0	0	0	-46,980,863,000
PC Precast Block Erection	block	168.00			27,516.35	16,733,000	373,070,000	3,658,679					4,622,746.80	2,811,202,000	62,673,773,000	614,658,160	0.00	0	0	0	0	-62,673,773,000
PC Composite I Girder Production & Erection	beam		108.00		23,938.92	48,986,000	358,995,000	3,520,616									2,585,403.36	5,290,484,000	38,771,458,000	380,229,743	38,771,458,000	
Construction of Deck Slab & Cross Beams	m3		5,200.42		74.91	8,650,000	9,620,000	94,343									389,719.18	44,983,351,000	50,030,214,000	490,643,798	50,030,214,000	
Waterproofing Work	m2	7,125.00	9,771.00	1.48	145,000	164,000	1,608						10,545.00	1,030,642,000	1,167,200,000	11,446,672	14,461.08	1,413,390,000	1,600,661,000	15,697,602	433,461,000	
Asphalt Pavement	m2	7,125.00	9,771.00	1.96	126,000	151,000	1,481						13,965.00	895,930,000	1,076,777,000	10,559,898	19,151.16	1,228,650,000	1,476,658,000	14,481,511	399,881,000	
4) Indirect Cost	L.S.	1.00	1.00										1,139,282.72	5,752,113,000	20,505,824,000	201,099,587	502,426.11	12,703,217,000	19,209,635,000	188,387,926	-1,296,189,000	
<b>Sub Total</b>													<b>8,734,348.98</b>	<b>44,398,397,000</b>	<b>157,508,216,000</b>	<b>1,544,675,168</b>	<b>3,851,866.50</b>	<b>98,051,355,000</b>	<b>147,933,026,000</b>	<b>1,450,771,761</b>	<b>-9,575,190,000</b>	
<b>4. Approach Bridge Portion (Can Tho side)</b>																						
<b>1) Foundation Construction</b>																						
<b>1-1) Main Bridge - Cu Lao Lat</b>																						
Cast-in-Place Concrete Pile (φ=1.5m)	m	11,520.00	11,080.00	40.38	2,881,000	3,404,000	33,383						465,177.60	33,185,981,000	39,210,031,000	384,530,806	447,410.40	31,918,461,000	37,712,426,000	369,843,869	-1,497,605,000	
Steel Pipe Pile Driving with Barge (φ=1.5m)	m	840.00	0.00	845.11	189,000	11,133,000	109,181						709,892.40	159,145,000	9,352,252,000	91,717,066	0.00	0	0	0	-9,352,252,000	
Steel Pipe Pile Driving with Barge (φ=0.8m)	m	1,170.00	0.00	268.07	130,000	3,602,000	35,325						313,641.90	152,121,000	4,213,784,000	41,324,368	0.00	0	0	0	-4,213,784,000	
<b>1-2) Cu Lao Lat - Substream</b>																						
Steel Pipe Pile Driving with Barge (φ=1.5m)	m	1,680.00	0.00	845.11	189,000	11,133,000	109,181						1,419,784.80	318,290,000	18,704,503,000	183,434,122	0.00	0	0	0	-18,704,503,000	
Steel Pipe Pile Driving with Barge (φ=0.8m)	m	2,340.00	0.00	268.07	130,000	3,602,000	35,325						627,283.80	304,242,000	8,427,567,000	82,648,727	0.00	0	0	0	-8,427,567,000	
Cast-in-Place Concrete Pile (φ=1.5m)	m	0.00	2,200.00	40.38	2,881,000	3,404,000	33,383						0.00	0	0	0	88,836.00	6,337,601,000	7,488,027,000	73,434,705	7,488,027,000	
Cast-in-Place Concrete Pile (φ=2.0m)	m	0.00	2,520.00	71.79	5,121,000	6,051,000	59,342						0.00	0	0	0	180,910.80	12,905,768,000	15,248,563,000	149,541,892	15,248,563,000	
<b>1-3) Substream - Can Tho side</b>																						
Steel Pipe Pile Driving with Barge (φ=0.8m)	m	1,170.00	0.00	268.07	130,000	3,602,000	35,325						313,641.90	152,121,000	4,213,784,000	41,324,368	0.00	0	0	0	-4,213,784,000	
Cast-in-Place Concrete Pile (φ=1.5m)	m	1,440.00	1,170.00	40.38	2,881,000	3,404,000	33,383						58,147.20	4,148,248,000	4,901,254,000	48,066,352	47,241.60	3,370,451,000	3,982,269,000	39,053,912	-918,985,000	
<b>2) Substructure Construction</b>																						
<b>2-1) Main Bridge - Cu Lao Lat</b>																						
Concrete to Substructure on the Ground	m3	5,618.10	6,527.00	7.87	941,000	1,043,000	10,229						44,214.43	5,284,879,000	5,857,456,000	57,443,777	51,367.49	6,139,871,000	6,805,080,000	66,737,078	947,624,000	
Concrete to Substructure on the Waterway	m3	1,097.40	1,234.58	12.49	853,000	1,015,000	9,954						13,706.53	935,816,000	1,113,316,000	10,918,234	15,419.90	1,052,797,000	1,252,485,000	12,283,058	139,169,000	
Processing & Fabrication of Rein.Steel	tf	634.00	732.76	0.00	6,238,000	6,238,000	61,176						0.00	3,954,902,000	3,954,902,000	38,785,525	0.00	4,570,968,000	4,827,254	41,827,254	616,066,000	
Excavation (Soil, by Bucket Diger)	m3	11,739.20	15,343.83	0.00	5,000	5,000	49						0.00	60,812,000	60,812,000	596,380	0.00	79,481,000	79,481,000	779,466	18,669,000	
Earthfilling for Substructure	m3	4,393.80	5,742.71	0.28	36,000	40,000	392						1,230.26	158,181,000	174,113,000	1,707,517	1,607.96	206,743,000	227,566,000	2,251,728	53,453,000	
<b>2-2) Cu Lao Lat - Substream</b>																						
Concrete to Substructure on the Waterway	m3	1,975.40	4,461.45	12.97	805,000	973,000	9,542						25,620.94	1,589,856,000	1,921,677,000	18,845,790	57,865.01	3,590,765,000	4,340,117,000	42,563,310	2,418,440,000	
Processing & Fabrication of Rein.Steel	tf	186.20	420.53	0.00	6,238,000	6,238,000	61,176						0.00	1,161,518,000	1,161,518,000	11,390,949	0.00	2,623,272,000	2,623,272,000	25,726,297	1,461,754,000	

Note: Exchange Rate: F/S & B/D Stage: 127 JPY = 12,950 VND = 1 USD (Sept.1998)  
 D/D Stage: 127 JPY = 13,950 VND = 1 USD (July 1999)



COST COMPARISON BETWEEN F/S AND B/D

Component	Quantities		Unit Price								Amount								Difference (Unit: VND)		
	Unit	F/S	B/D	F/S				B/D				F/S				B/D					
				Foreign Exchange Portion (Unit: USD)	Local Currency Portion (Unit: VND)	Combined Total (Unit: VND) (Unit: J Yen)		Foreign Exchange Portion (Unit: USD)	Local Currency Portion (Unit: VND)	Combined Total (Unit: VND) (Unit: J Yen)		Foreign Exchange Portion (Unit: USD)	Local Currency Portion (Unit: VND)	Combined Total (Unit: VND) (Unit: J Yen)		Foreign Exchange Portion (Unit: USD)	Local Currency Portion (Unit: VND)	Combined Total (Unit: VND) (Unit: J Yen)			
2-3) Substream~Can Tho side																					
Concrete to Substructure on the Ground	m3	717.50	1,171.60	7.21	867,000	961,000	9,421														407,623,000
Concrete to Substructure on the Waterway	m3	799.80	0.00	14.61	857,000	1,046,000	10,258														-313,776,000
Processing & Fabrication of ReIn.Steel	tf	103.00	402.52	0.00	6,238,000	6,238,000	61,176														1,868,410,000
Excavation (Soil, by Bucket Digger)	m3	1,392.00	2,181.76	0.00	5,000	5,000	49														4,090,000
Earthfilling for Substructure	m3	1,922.30	3,012.93	0.16	20,000	22,000	216														24,576,000
3) Superstructure Construction																					
3-1) Main Bridge ~ Cu Lao Lat																					
PC Precast Block Production	block	432.00	0.00	16,008.96	72,332,000	279,648,000	2,742,491														-120,807,935,000
PC Precast Block Election	block	432.00	0.00	27,516.35	16,733,000	373,070,000	3,658,679														-161,166,272,000
PC Composite I Girder Production & Election	beam	171.00	23,938.92	48,986,000	358,995,000	3,520,646															61,388,141,000
Construction of Deck Slab & Cross Beams	m3	8,233.99	74.94	8,650,000	9,620,000	94,343															79,214,507,000
Waterproofing Work	m2	18,450.00	15,580.00	1.47	144,000	163,000	1,599														-466,811,000
Asphalt Pavement for PC Box Girder	m2	18,450.00	15,580.00	1.95	125,000	150,000	1,471														-430,760,000
3-2) Cu Lao Lat ~ Substream																					
PC Precast Block Production	block	78.00	182.00	15,296.68	93,823,000	291,138,000	2,835,176														30,278,314,000
PC Precast Block Election	block	78.00	227.00	27,516.35	16,733,000	373,070,000	3,658,679														55,587,441,000
Waterproofing Work	m2	3,587.50	6,970.00	1.47	144,000	163,000	1,599														550,169,000
Asphalt Pavement for PC Box Girder	m2	3,587.50	6,970.00	1.95	125,000	150,000	1,471														507,682,000
3-3) Substream~Can Tho side																					
PC Precast Block Production	block	72.00	0.00	16,008.96	72,332,000	279,648,000	2,742,491														-20,134,636,000
PC Precast Block Election	block	72.00	0.00	27,516.35	16,733,000	373,070,000	3,658,679														-26,861,046,000
PC Composite I Girder Production & Election	beam	18.00	23,938.92	48,986,000	358,995,000	3,520,646															6,461,909,000
Construction of Deck Slab & Cross Beams	m3	866.74	74.94	8,650,000	9,620,000	94,343															81,773,966
Waterproofing Work	m2	3,075.00	1,640.00	1.47	144,000	163,000	1,599														-233,406,000
Asphalt Pavement for PC Box Girder	m2	3,075.00	1,640.00	1.95	125,000	150,000	1,471														-215,380,000
4) Indirect Cost	I.S.	1.00	1.00																		-15,740,172,000
Sub Total																					-120,675,698,000
5. Approach Road Portion (Vinh Long side)																					
1) Road Embankment																					
Earthfilling for Road Embankment	m3	516,536.90	596,260.75	0.00	7,000	7,000	69														526,536,000
Surface Adjustment	m2	93,517.10	107,950.81	0.18	3,000	5,000	49														78,508,000
2) Base Course & Subgrade																					
Subbase Course Filling	m2	96,439.00	113,632.37	0.28	83,000	87,000	853														1,314,318,000
Surface Adjustment	m2	90,432.00	104,389.54	0.18	8,000	10,000	98														150,023,000
Base Course Filling	m2	90,432.00	104,389.54	0.28	9,000	13,000	127														182,557,000
3) Pavement																					
Binder Course	m2	84,780.00	97,865.20	0.41	183,000	188,000	1,844														2,448,935,000
Surface Course	m2	84,780.00	97,865.20	0.41	70,000	75,000	736														989,608,000
4) Slope Protection Works																					
Slope Tamping Work	m2	15,690.20	18,111.87	0.00	4,000	4,000	39														8,781,000
Backfilling for Concrete Block	m3	7,845.10	9,055.94	0.00	112,000	112,000	1,098														135,792,000
Permeable Sheet Installation	m2	15,690.20	18,111.87	5.78	10,000	85,000	831														208,667,000
Slope Protection (Concrete Block)	m2	15,690.20	18,111.87	6.01	419,000	497,000	4,874														1,202,681,000

Note: Exchange Rate: F/S & B/D Stage: 127 JPY = 12,950 VND = 1 USD (Sept.1998)  
 D/D Stage: 127 JPY = 13,950 VND = 1 USD (July 1999)

COST COMPARISON BETWEEN F/S AND B/D

Component	Quantities		Unit Price								Amount								Difference (Unit: VND)	
	Unit	F/S	B/D	F/S		B/D		F/S		B/D		F/S		B/D		Difference (Unit: VND)				
				Foreign Exchange Portion (Unit: USD)	Local Currency Portion (Unit: VND)	Foreign Exchange Portion (Unit: USD)	Local Currency Portion (Unit: VND)	Foreign Exchange Portion (Unit: USD)	Local Currency Portion (Unit: VND)	Foreign Exchange Portion (Unit: USD)	Local Currency Portion (Unit: VND)	Foreign Exchange Portion (Unit: USD)	Local Currency Portion (Unit: VND)							
5) Road Miscellaneous																				
Concrete Kerb Installation	m	8,334.00	0.00	0.00	64,000	64,000	628					0.00	534,230,000	534,230,000	5,219,167	0	-534,230,000			
Concrete Median Installation	m	4,207.00	4,856.32	0.00	66,000	66,000	647					0.00	279,186,000	279,186,000	2,740,903	0	43,136,000			
Guard Railing Installation	m	3,754.00	4,333.40	25.77	18,000	352,000	3,452					96,740.58	69,032,000	1,321,823,000	12,963,032	111,671.72	79,687,000	204,013,000		
Pedestrian Guard Railing Installation	m	3,754.00	0.00	16.94	18,000	237,000	2,324					63,592.76	69,032,000	892,558,000	8,733,272	0	-892,558,000			
6) Minor Bridges																				
PC Box Girder Bridge	m2	6,352.50	10,330.32	344.89	4,085,000	8,551,000	83,859					2,190,923.69	25,947,704,000	54,320,166,000	532,715,141	3,562,824.06	42,196,144,000	88,334,716,000	866,294,126	34,014,550,000
PC Hollow Slab Bridge	m2		2,217.60	232.96	4,398,000	7,415,000	72,719					0.00	0	0	516,612.10	9,724,042,000	16,444,169,000	161,267,140	16,444,169,000	
PC Composite I Beam	m2	4,042.50	1,785.63	232.96	4,398,000	7,415,000	72,719					941,722.58	17,740,725,000	29,976,032,000	293,973,441	415,980.36	7,854,036,000	13,240,982,000	129,853,646	-16,735,050,000
PC Slab Bridge	m2	1,617.00		124.29	6,495,000	8,105,000	79,485					200,982.42	10,502,676,000	13,105,398,000	128,523,980	0.00	0	0	0	-13,105,398,000
7) Culvert/Pipe (9 points, Total Length: 233m)	m	233.00	229.65	0.00	369,000	369,000	3,619					0.00	85,994,000	85,994,000	843,339	0.00	84,758,000	84,758,000	831,217	-1,236,000
8) Retaining Wall																				
Type-1, H=3.0-8.0m	m	105.00	0.00	52.59	8,285,000	8,966,000	87,929					5,521.93	869,900,000	941,409,000	9,232,351	0.00	0	0	0	-941,409,000
Type-2, H=1.0-7.0m	m	35.00	0.00	46.21	7,157,000	7,735,000	76,053					1,617.33	250,489,000	271,434,000	2,661,940	0.00	0	0	0	-271,434,000
Type-2, H=3.0m	m	190.00	0.00	23.48	3,117,000	3,421,000	33,550					4,461.20	592,193,000	649,966,000	6,374,184	0.00	0	0	0	-649,966,000
9) Soft Ground Treatment																				
Drainage Blanket Installation (t=0.5m)	m3	45,539.20	52,590.94	0.00	7,000	7,000	69					0.00	312,696,000	312,696,000	3,066,594	0.00	360,958,000	360,958,000	3,539,897	48,262,000
Surcharge	m3	97,371.20	112,399.76	0.00	7,000	7,000	69					0.00	668,307,000	668,307,000	6,554,033	0.00	771,456,000	771,456,000	7,565,630	103,149,000
Prefabricated Vertical Drainage	m	38,479.80	44,418.89	16.59	7,000	222,000	2,177					638,379.88	259,123,000	8,526,142,000	83,615,447	736,909.39	299,117,000	9,842,094,000	96,520,922	1,315,952,000
10) Interchange																				
Interchange (B.P.)	L.S.	0.00	1.00	0.00	0	0	0					0.00	0	0	0	1,238,400.00	16,037,280,000	32,074,560,000	314,553,600	32,074,560,000
Interchange (NH No.54)	L.S.	0.00	1.00	0.00	0	0	0					0.00	0	0	0	1,414,000.00	18,311,300,000	36,622,600,000	359,156,000	36,622,600,000
11) Infrastructure for Resettlement	L.S.	1.00	1.00	0.00	0	0	0					0.00	6,029,002,000	6,029,002,000	59,126,120	0.00	57,397,120,000	57,397,120,000	562,890,673	51,368,118,000
12) Indirect Cost	L.S.											672,666.63	13,958,832,000	22,669,865,000	222,322,228	1,258,418.02	26,467,572,000	42,764,085,000	419,385,235	20,094,220,000
Sub Total												5,157,110.82	120,866,539,000	187,651,124,000	1,840,285,154	9,647,871.46	229,177,033,000	354,116,968,000	3,472,807,331	166,465,844,000
6. Approach Road Portion (Can Tho side)																				
1) Road Embankment																				
Earthfilling for Road Embankment	m3	538,139.30	669,733.51	0.00	7,000	7,000	69					0.00	3,688,231,000	3,688,231,000	36,150,682	0.00	4,423,255,000	4,423,255,000	43,378,640	737,024,000
Surface Adjustment	m2	132,214.40	158,649.31	0.18	3,000	5,000	49					23,798.59	410,922,000	719,114,000	7,052,315	28,556.88	493,082,000	862,894,000	8,462,358	143,780,000
2) Base Course & Subgrade																				
Subbase Course Filling	m2	62,627.90	75,149.70	0.28	83,000	87,000	853					17,535.81	5,190,600,000	5,417,689,000	53,131,004	21,041.92	6,228,407,000	6,500,900,000	63,754,000	1,083,211,000
Surface Adjustment	m2	127,853.00	153,415.89	0.18	8,000	10,000	98					23,013.51	1,076,203,000	1,374,228,000	13,476,985	27,614.86	1,291,378,000	1,648,990,000	16,171,562	274,762,000
Base Course Filling	m2	51,141.20	61,366.36	0.28	9,000	13,000	127					14,319.54	483,463,000	668,901,000	6,559,879	17,182.58	580,127,000	802,641,000	7,871,460	133,740,000
3) Pavement																				
Binder Course	m2	119,862.00	143,827.17	0.41	183,000	188,000	1,844					49,143.42	21,979,335,000	22,615,742,000	221,791,447	58,969.14	26,373,876,000	27,137,526,000	266,136,355	4,521,784,000
Surface Course	m2	119,862.00	143,827.17	0.41	70,000	75,000	736					49,143.42	8,428,516,000	9,064,923,000	88,899,245	58,969.14	10,113,711,000	10,877,361,000	106,673,733	1,812,438,000
4) Slope Protection Works																				
Slope Tamping Work	m2	23,341.50	28,008.39	0.00	4,000	4,000	39					0.00	84,636,000	84,636,000	830,021	0.00	101,558,000	101,558,000	995,974	16,922,000
Backfilling for Concrete Block	m3	11,670.80	14,004.26	0.00	112,000	112,000	1,098					0.00	1,308,845,000	1,308,845,000	12,835,777	0.00	1,570,536,000	1,570,536,000	15,402,168	261,691,000
Permeable Sheet Installation	m2	23,341.50	28,008.39	5.78	10,000	85,000	834					134,913.87	244,811,000	1,991,976,000	19,535,209	161,888.49	293,794,000	2,390,250,000	23,441,062	598,274,000
Slope Protection (Concrete Block)	m2	23,341.50	28,008.39	6.01	419,000	497,000	4,874					140,282.42	9,775,490,000	11,592,147,000	113,683,604	168,330.42	11,729,998,000	13,909,877,000	136,413,466	2,317,730,000
5) Road Miscellaneous																				
Concrete Kerb Installation	m	12,360.00	0.00	0.00	64,000	64,000	628					0.00	792,307,000	792,307,000	7,770,115	0.00	0	0	0	-792,307,000
Concrete Median Installation	m	6,200.00	7,439.63	0.00	66,000	66,000	647					0.00	411,888,000	411,888,000	4,039,365	0.00	494,241,000	494,241,000	4,846,997	82,333,000
Guard Railing Installation	m	2,725.00	3,269.84	25.77	18,000	352,000	3,452					70,223.25	50,110,000	959,501,000	9,409,778	84,263.78	60,129,000	1,151,345,000	11,291,183	191,844,000
Pedestrian Guard Railing Installation	m	2,725.00	0.00	16.94	18,000	237,000	2,324					46,161.50	50,110,000	647,801,000	6,353,933	0.00	0	0	0	-647,801,000

Note: Exchange Rate: F/S & B/D Stage: 127 JPY = 12,950 VND = 1 USD (Sept.1998)  
 D/D Stage: 127 JPY = 13,950 VND = 1 USD (July 1999)

COST COMPARISON BETWEEN F/S AND B/D

Component	Quantities		Unit Price								Amount				Difference (Unit: VND)					
	Unit	F/S	B/D	F/S				B/D				F/S		B/D						
				Foreign Exchange Portion (Unit: USD)	Local Currency Portion (Unit: VND)	Combined Total (Unit: VND) (Unit: J Yen)		Foreign Exchange Portion (Unit: USD)	Local Currency Portion (Unit: VND)	Combined Total (Unit: VND) (Unit: J Yen)		Foreign Exchange Portion (Unit: USD)	Local Currency Portion (Unit: VND)	Combined Total (Unit: VND) (Unit: J Yen)						
6) Minor Bridges	total																			
PC Box Girder Bridge	m2	0.00	4,924.92	344.89	4,083,000	8,551,000	83,859	344.89	4,083,000	8,551,000	83,859	0.00	0	0	0	1,698,533.66	20,116,767,000	42,113,063,000	413,000,695	42,113,063,000
PC Composite I Beam	m2	10,164.00	11,814.50	286.57	4,160,000	7,871,000	77,191	286.57	4,160,000	7,871,000	77,191	2,912,708.97	42,286,708,000	80,006,289,000	781,617,660	3,385,681.27	49,153,595,000	92,998,167,000	912,028,356	12,991,878,000
PC Slab Bridge	m2	462.00	0.00	131.94	10,628,000	12,337,000	120,988	131.94	10,628,000	12,337,000	120,988	60,955.56	4,910,014,000	5,699,389,000	55,893,622	0.00	0	0	0	-5,699,389,000
7) Culvert-Pipe (5 points, Total Length: 129m)	m	129.00	370.35	0.00	369,000	369,000	3,619					0.00	47,611,000	47,611,000	466,919	0.00	136,687,000	136,687,000	1,340,483	89,076,000
8) Retaining Wall																				
Type-1, H=3.0-8.0m	m	330.00	0.00	52.59	8,285,000	8,966,000	87,929					17,354.70	2,733,922,000	2,958,715,000	29,015,969	0.00	0	0	0	-2,958,715,000
9) Soft Ground Treatment																				
Drainage Blanket Installation (t=0.5m)	m3	115,306.30	138,360.61	0.00	7,000	7,000	69					0.00	791,405,000	791,405,000	2,761,269	0.00	949,638,000	949,638,000	9,313,052	158,233,000
Surcharge	m3	112,377.40	134,846.10	0.00	7,000	7,000	69					0.00	771,302,000	771,302,000	7,564,120	0.00	925,516,000	925,516,000	9,076,489	154,214,000
Prefabricated Vertical Drainage	m	19,902.50	23,881.80	16.59	7,000	222,000	2,177					330,182.48	134,023,000	4,409,886,000	43,247,531	396,199.06	160,820,000	5,291,598,000	51,894,436	881,712,000
10) Interchange																				
Interchange (NH No.91)	L.S.	0.00	1.00	0.00	0	0	0									1,399,360.00	18,121,712,000	36,243,424,000	355,437,440	36,243,424,000
11) Infrastructure for Resettlement	L.S.	1.00	1.00	0.00	0	0	0					0.00	6,029,002,000	6,029,002,000	59,126,120	0.00	55,618,049,000	55,618,049,000	545,443,415	49,589,047,000
12) Indirect Cost	L.S.											583,460.56	14,674,986,000	22,230,800,000	218,016,340	1,125,991.98	27,453,350,000	42,036,946,000	412,254,219	19,806,146,000
Sub Total												4,473,197.63	126,352,521,000	184,280,430,000	1,807,228,927	8,632,605.18	236,392,225,000	348,184,462,000	3,414,627,542	163,904,032,000
Total												143,602,893.50	730,711,292,000.00	2,590,368,763,000	25,403,616,439.00	150,859,186.96	1,161,881,050,000	3,115,507,520,000	30,553,625,872	525,138,757,000

Note: Exchange Rate: F/S & B/D Stage: 127 JPY = 12,950 VND = 1 USD (Sept. 1998)  
 D/D Stage: 127 JPY = 13,950 VND = 1 USD (July 1999)



7.2 The Review of the Cost Estimation, 14 September 2000



The Study Team of The Detailed Design on The Can Tho Bridge Construction Project in Socialist Republic of Viet Nam

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Our ref.

Date 14 September, 2000

**Subject: The Review of the Cost Estimation**

Dear Sir,

Referring to the comments on the Minutes of Meeting on 7 August 2000 in Hanoi and the comments on the official letter No.2889/GTVT/CGD, the JICA Study Team prepared and sends the replies as shown in the following.

The contents of this letter were confirmed by JICA headquarters, Tokyo on 14 September 2000.

Best Regards,

Koji Nakai

Co-Team Leader of Study Team,  
The Study Team of Detailed Design  
on the Can Tho Bridge Construction  
in Socialist Republic of Viet Nam

- c.c. - Shoichi Miyazaki, Embassy of Japan in Hanoi  
- Mr. Takao Kaibara, JICA Tokyo  
- Mr. Yuichi Sugano, JICA Vietnam Office  
- Mr. Tsuyoshi Matsumoto, JICA Quality Control Committee
- Mr. Hideo Ezaki, JBIC Tokyo  
- Mr. Takayuki Sato, JBIC Vietnam Office  
- Mr. Nguyen Xuan Hiep, Vice Project Manager of the Can Tho Bridge Project, My Thuan PMU  
- Mr. Naoki Ariga, General Manager of Nippon Koei Hanoi Office  
- File



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# THE REPLY TO THE COMMENTS ON THE OFFICIAL LETTER (No.2889/GTVT/CTGD) ABOUT PROJECT COST ESTIMATION

18<sup>th</sup> September, 2000

Hereinafter, the JICA Study Team prepared the replies with referring to the comments on the letter, No.2889/GTVT/CTGD dated 30<sup>th</sup> August 2000.

These replies were confirmed by the JICA headquarters Tokyo on 14<sup>th</sup> September 2000.

## 1. Final Official Total Cost Estimate with Unit Price Analysis (Item Number I/General issues: 1. of No.2889/GTVT/CTGD)

The final official total cost (Project Cost) was reviewed and estimated based on the quantities with considering the revisions of the technical design.

The details of the revisions of the technical design were already explained with "THE REPLY TO THE COMMENTS ON THE MINUTES OF MEETING" on 6<sup>th</sup> September 2000, submitted by the JICA Study Team.

Moreover, the items described in the following sections were also considered in this final cost estimation.

- Other Expenses (Indirect Cost) Described in "Section 2" of this letter
- Unit Prices of the Items for Bridges in the Approach Roads and Approach Span Bridges Described in "Section 5" of this letter
- Unit Prices of the Items for Main Bridge Described in "Section 6" of this letter

The final official total cost is as shown in the following:

Cost & Stage	Exchange Rate	Direct Construction Cost	Other Expenses	Project Cost
		(Million JPY) (Million USD)	(Million JPY) (Million USD)	(Million JPY) (Million USD)
Project Cost F/S Stage (OECF Appraisal)	1USD =	25,530	15,760	41,290
	140JPY =	(182)	(113)	(295)
	12,950VND			
Final Project Cost D/D Stage	1USD =	31,652	10,870	42,522
	127JPY =	249	86	335
	13,950VND			
	1USD =	28,726	9,905	38,631
	108JPY =	266	92	357
	14,100VND			

The increase of Direct Construction Cost increases 6,122 million JP Yen than F/S stage with the exchange rate, 1USD=127JPY=13,950VND.

The detail reasons of this increase are explained in the following Section 4., "Reason for the Cost Increase in Comparison with the Feasibility Study (OECF Appraisal)".

The Project Cost with the summary of unit price analysis is shown in the "Attachment-1".

**2. Other Expenses (Indirect Cost)**

(Item Number I/General issues: 2. of No.2889/GTVT/CTGD)

Referring to the other expenses based on the Vietnamese Governmental regulations (Appendix 1 of No.2889/GTVT/CTGD), these expenses were reviewed in the Project Cost.

For some items, the JICA Study Team referred not only to the Vietnamese Governmental regulations, but also the tendency of the international long-term loan.

The details of other expenses were explained on the "Attachment-2".

**3. Exchange Rates**

(Item Number I/General issues: 3. of No.2889/GTVT/CTGD)

The applied exchange rates in this reply were,

1) 1 USD = 127 JPY = 13,950 VND (for the Final Report of JICA Study)

and,

2) 1 USD = 108 JPY = 14,100 VND (for the reference, current exchange rate).

The former rate was based on the rate in the market in the beginning of the Detail Design stage, and the latter rate was based on the current exchange rate.

The "separate contingency item" suggested by Vietnamese side is worth considering, but it is not defined in the international long-term loan. Accordingly, it is not appropriate to estimate and add this item into the Project Cost.

4. Reason for the Cost Increase in Comparison with the Feasibility Study (OECF Appraisal)

(Item Number I/General issues: 4. of No.2889/GTVT/CTGD)

The major reasons of the cost increase are summarized as shown in the following:

(Calculation Case: 1USD=127JPY=13,950VND)

1)	Revision of the type of Interchange at R51 & R91	Increased Cost 726.4 million JPY (5.7million USD)
2)	Extension of the project length	Increased Cost 224.1 million JPY (1.8million USD)
3)	Revision of the types and lengths of the Minor Bridges in Package 1 & 3 with considering the following items: / Longitudinal Gradation was requested by MOT to use less than 4.0%. / Navigational Clearances of rivers were requested to review and enlarge than those of F/S stage by the Local Committee. / Limited locations of embankments for pre-loading at locations of the abutments.	Increased Cost 2,105.6 million JPY (16.6million USD)
4)	Revision of the type and length of the Superstructure of Cable Stay Bridge. (Not include Viaduct area.)	Increased Cost 2,274.0 million JPY (17.9 million USD)
5)	Revision of the Pile caps of Towers.	Decreased Cost 159.7million JPY (1.3 million USD)
6)	Revision of Types and Penetration Levels of Foundations of Towers. / Change of the Foundation type from Open Caisson (Dia. 10.0m) to Cast in Place Concrete Piles (Dia. 3.0m)	Increased Cost 2,630.0 million JPY (20.7 million USD)
7)	Revision of the number and types of Piers of the side span of the Cable Stayed Bridge. / Increasing of the number of Piers from 4 to 6.	Decreased Cost 635.2 million JPY (5.0 million USD)
8)	Revision of Viaducts in Vinh Long Side / Change of the type of the Super Structure from Pre-Cast Segmental PC-Box Girder to PC-I girder.	Decreased Cost 635.2 million JPY (5.0 million USD)
9)	Revision of Viaducts & PC-Box girder in Can Tho Side. / Change of the type of Super Structure from Pre-Cast Segmental PC-Box Girder to PC-I girder.	Decreased Cost 3,163.7million JPY (24.9 million USD)
10)	Revision of Soft Grand Treatment	Increased Cost 344.8 million JPY (2.7 million USD)
11)	Widening of the typical cross section. / From 23.1m to 24.1m	Increased Cost 6.3 million JPY (0.05 million USD)
12)	Revision of Mobilization & Demobilization	Increased Cost 1,526.6 million JPY (12.0 million USD)

The total increase of the Direct Construction Cost is 6,122 million JPY (48.2 million USD)

The summary table of the above comparison of the Construction Cost is shown on the "Attachment -3".



5. **Unit Prices of the Items for Bridges in the Approach Roads and Approach Span Bridges**

(Item Number II/Details: 1. of No.2889/GTVT/CTGD)

Referring to the unit prices shown on appendix 2 of No.2889/GTVT/CTGD, the JICA Study Team reviewed the unit prices of the Can Tho Bridge Project.

The unit prices on appendix 2 were not directly adopted; however, they were referred and compared with the reviewed unit prices of this Project.

The comparison of these unit prices was summarized in the "Attachment-1".

6. **Unit Prices of the Items for Main Bridge**

(Item Number II/Details: 2. of No.2889/GTVT/CTGD)

As with the unit prices for Bridges in the Approach Roads and Approach Span Bridges, the unit prices on appendix 2 were referred and compared with the reviewed unit prices of this Project.

The comparison of these unit prices was shown in the "Attachment-1".

7. **Schedule**

(Item Number III/Schedule: of No.2889/GTVT/CTGD)

After receiving No.2889/GTVT/CTGD, the JICA Study Team submitted the revised schedule to JICA, MOT, and other related organizations on 5<sup>th</sup> September 2000, with the approval of JICA headquarters Tokyo. The revised schedule is as shown in the following, and completely consistent with the schedule on No.2889/GTVT/CTGD:

7 <sup>th</sup> , August	-	Signing of the Minutes of Meeting on the Draft Final Report in Hanoi
8 <sup>th</sup> , and 9 <sup>th</sup> , August	-	Proof Checking Consultant under TCQM sent the request about the results of design analysis of Cable Stayed Bridge to My Thuan PMU. (No.1004/VPDA,08/08/2000)
	-	My Thuan PMU transferred the above request to request the Study team the reply. (No.1172/PBCT, 09/08/2000)
15 <sup>th</sup> , August	-	Latest Cost Estimation Report was submitted to TCQM by the Study Team.
17 <sup>th</sup> , August	-	The details of the Cost Estimation Report were submitted to TCQM by the Study Team.
24 <sup>th</sup> , August	-	The Study Team sent the reply for the letters (No.1004/VPDA,08/08/2000 and No.1172/PBCT, 09/08/2000) to TCQM and My Thuan PMU.
30 <sup>th</sup> , August	-	The official comments about the Cost Estimation from MOT were sent to JICA. (No.2889/GTVT/CGD)
6 <sup>th</sup> , September	-	All testing results of technical standard and pending items about design were submitted to TCQM.

* 9 <sup>th</sup> , September	- The Cost Estimation Report with considering the comments suggested by the Vietnamese side will be submitted to TCQM by the Study Team.
15 <sup>th</sup> , September	- The final comments about the cost estimation and the design analysis will be sent to JICA by TCQM. - The Final Cost Estimation Report will be submitted to TCQM by the Study Team. - The comparison of the construction costs of Feasibility Study and Final Detail Design will be submitted to TCQM by the Study Team.
After 15 <sup>th</sup> , September to the End of October	- The Study Team will examine the final comments submitted by TCQM, and summarize the Final Reports.
End of October	- Submission of the Final Report to JICA

This reply is corresponding with the Cost Estimation Report to have been submitted on 9<sup>th</sup> September on the schedule (the item with asterisk).

The final comments that is scheduled to be submitted by MOT on 15<sup>th</sup> September will be required on time, and after receiving, the JICA Study Team will review and apply them for the preparation of Final Report.

**8. Attachment**

Attachment-1	The Final Project Cost with the Summary of Unit Prices	A4,	9 Sheets
Attachment-2	The Details of Other Expenses	A4,	2 Sheets
Attachment-3	The Final Comparison of the Cost Increase with the Feasibility Study (OECD Appraisal)	A4,	2 Sheets

Attachment-1, The Final Project Cost with the Summary of Unit Prices

Reference Table of Project Cost

		Unit : Million JPY & Million USD											
		Package 1			Package 2			Package 3			Total	Exchange Rate	
		Earth Work Section in Ving Long Side	Viaduct Section in Ving Long Side	Cable Stay Br.	Viaduct Section in Can Tho Side	Earth Work Section in Can Tho Side	Total	Earth Work Section in Ving Long Side	Cable Stay Br.	Viaduct Section in Can Tho Side	Earth Work Section in Can Tho Side	Total	Exchange Rate
F/S Stage (OECF Appraisal Mission) Project Cost	Construction Cost	1,940	1,643	14,118	5,926	1,904	25,530						
		(14)	(12)	(101)	(42)	(14)	(182)						1USD=140JPY =VND12,950
	Other Expenses			(155)			15,760					15,760	
	Total			(113)			41,290					(295)	
D/D Stage Final Project Cost	Construction Cost	3,208	1,008	20,608	2,762	4,066	31,652						
		25	8	162	22	32	249						1USD=127JPY =VND13,950
	Other Expenses			10,870			10,870					86	
	Total			42,522			42,522					335	
D/D Stage Final Project Cost	Construction Cost	2,800	902	19,002	2,490	3,532	28,726						
		26	8	176	23	33	266						1USD=108JPY =VND14,100
	Other Expenses			9,905			9,905					92	
	Total			38,631			38,631					357	

CAN THO BRIDGE CONSTRUCTION PROJECT			MOT	Package 1&3	Package 2
Category	Name	Unit	Unit price Combined total price (VND)	Unit price Combined total price (VND)	Unit price Combined total price (VND)
1	General				
1 1	Mobilization & Demobilization				
1 1 (1)	Mobilization 1	LS	7,823,779,891	7,870,866,000	100.60%
1 1 (1)	Mobilization 2	LS	38,077,451,078		30,636,775,000 80.46%
1 1 (1)	Mobilization 3	LS	4,161,585,048	4,163,009,000	100.03%
1 1 (2)	Demobilization 1	LS	312,951,196	316,022,000	100.98%
1 1 (2)	Demobilization 2	LS	11,889,311,693		7,361,732,000 61.92%
1 1 (2)	Demobilization 3	LS	135,000,000	138,530,000	102.61%
1 2	Construction of Temporary Yard				
1 2 (1)	Construction of Temporary Yard 1	LS	17,569,140,570	18,618,409,000	105.97%
1 2 (1)	Construction of Temporary Yard 2	LS	93,045,393,397		101,711,128,000 109.31%
1 2 (1)	Construction of Temporary Yard 3	LS	10,914,563,700	11,566,406,000	105.97%
1 3	Temporary Works				
1 3 (1)	Temporary Road & Bridge 1	LS	13,226,925,000	12,340,240,000	93.30%
1 3 (1)	Temporary Road & Bridge 2	LS	35,152,918,273		27,205,463,000 77.39%
1 3 (1)	Temporary Road & Bridge 3	LS	26,166,030,478	25,839,288,000	98.75%
1 4	Maintenance & Protection of Traffic				
1 4 (1)	Maintenance & Protection of Traffic Vehicle & Vessel 1	LS	219,798,463	288,069,000	131.06%
1 4 (1)	Maintenance & Protection of Traffic Vehicle & Vessel 2	LS	3,590,437,298		3,674,018,000 102.33%
1 4 (1)	Maintenance & Protection of Traffic Vehicle & Vessel 3	LS	233,828,152	306,401,000	131.04%
1 5	Engineer's Office				
1 5 (1)	Establish & Maintain the Engineer's Office including All Specified Furniture, Fitting & Equipment	LS	677,970,000		1,115,173,000 164.49%
1 6	Vehicle & Launches for the Engineer				
1 6 (1)	Supply & Maintain of the Engineer's Vehicle Including Drivers	LS	8,033,861,138		9,858,731,000 122.71%
1 6 (2)	Supply & Maintain of the Engineer's Vessel Including Drivers	LS	2,969,675,000		3,137,625,000 105.66%
1 7	Accommodation for the Engineer's Staff				
1 7 (1)	Construction & Maintenance of Accommodation for Engineer	LS	8,221,376,989		9,227,802,000 112.24%
1 8	Contractor's Services During Execution of the Works	LS	6,283,233,798		7,133,117,000 113.53%
2	Site clearing and Demolition				
2 1	Site clearing and Demolition				
2 1 (1)	Site Clearing and Demolition (Rice Field)	m2	1,943	2,000	102.93%
2 1 (2)	Removal of Existing Tree (More than 30 trees/100m2)	m2	4,329	4,000	92.40%

CANTHO BRIDGE CONSTRUCTION PROJECT				MOT	Package 1&3	Package 2
Category	Name	Unit	Unit price	Unit price	Unit price	Unit price
			Combined total price (VND)	Combined total price (VND)	Combined total price (VND)	Combined total price (VND)
3	<b>Earthworks</b>					
3 1	<b>Embankment &amp; Removal Material</b>					
3 1 (1)	Sand Blanket (t=700mm)	m2	28,275	22,000	77.81%	
3 1 (2)	Supply, Place, Compact & Trim Sand Fill to Embankment More Than 1.05 m Below Pavement Surface Level	m3	41,016	30,000	73.14%	
3 1 (3)	Supply, Place, Compact & Trim Sand Fill to Embankment Less Than 1.05 m Below Pavement Surface Level (Sub-Grade)	m3	39,082	47,000	120.26%	
3 1 (4)	Supply, Place, Compact & Trim Sand Fill to Preloading Embankment More Than 2.0m Over Bottom of Sub-Grade Level	m3	44,160	30,000	67.93%	
3 1 (5)	Supply and Place Sand Fill as Surcharge to Embankment, More Than 2.0m Over Bottom of Sub-Grade Level	m3	44,160	30,000	67.93%	
3 1 (6)	Removal of Pre-Loading Material	m3	14,816	17,000	114.74%	
3 1 (7)	Removal of Surcharge Material	m3	14,114	16,000	113.36%	
3 2	<b>Soft Ground Treatment</b>					
3 2 (1)	Prefabricated Vertical Drain (PVD)	m	6,000	6,000	100.00%	
3 2 (2)	Sand Compaction Pile (700mm) in Selected Locations as Specified (SCP)	m		50,000		
3 2 (3)	Establishment & Measurement for Soft Grand Treatment 1	LS	828,387,077	852,250,000	102.88%	
3 3 (3)	Establishment & Measurement for Soft Grand Treatment 3	LS	1,571,154,506	1,616,413,000	102.88%	
3 3	<b>Structure Excavation &amp; Backfilling</b>					
3 3 (1)	Excavation for Structures in Any Material Over the Water Table	m3	13,334	15,000	112.49%	
3 3 (2)	Excavation for Structures in Any Material Below the Water Table	m3	14,658	17,000	115.98%	18,000 122.80%
3 3 (3)	Structure Excavation in River	m3	479,138	351,000	73.26%	379,000 79.10%
3 3 (4)	Backfill to Structures	m3	49,054	56,000	114.16%	60,000 122.31%
3 3 (5)	Excavation of Any Material Over the Water Table Other Than Structure Section	m3	14,000	14,000	100.00%	
3 3 (6)	Excavation of Any Material Below the Water Table Other the Structure Section	m3	14,000	14,000	100.00%	
4	<b>Slope Protection</b>					
4 1	<b>Slope Protection</b>					
4 1 (1)	Trim Side Slopes by Bulldozer	m2	5,392	6,000	111.28%	
4 1 (2)	Supply, Place, Compact & Trim Clay Material Fill to Side Slope.(t=50cm)	m2	7,855	9,000	114.58%	
4 1 (3)	Sodding	m2	47,081	48,000	101.95%	
4 1 (4)	Masonry Stone Slope Protection	m2	399,718	278,000	69.55%	
4 1 (5)	Masonry Stone Slope Protection to Side Berms	m2	399,718	278,000	69.55%	
4 1 (6)	Footing for Masonry Stone Slope Protection	m	815,205	879,000	107.83%	
4 1 (7)	Revetment Works	m2	379,000			379,000 100.00%

**CANTHO BRIDGE CONSTRUCTION PROJECT**

CANTHO BRIDGE CONSTRUCTION PROJECT			MOT	Package 1&3	Package 2
Category	Name	Unit	Unit price	Unit price	Unit price
			Combined total price (VND)	Combined total price (VND)	Combined total price (VND)
5	Drainage				
5 1	R.C.Pipe				
5 1 (1)	R.C. Pipe, D-400mm	m	236,987	256,000	108.02%
5 1 (2)	R.C. Pipe, D-500mm	m	316,634	339,000	107.06%
5 2	Side Ditch				
5 2	U-Shaped Side Ditch (500*550)	m	1,605,552	1,734,000	108.00%
5 3	Catch Basin				
5 3 (1)	Catch Basin Type A	Each	75,045,453	71,503,000	95.28%
5 3 (2)	Catch Basin Type B	Each	75,056,743	71,523,000	95.29%
6 1	Pavement				
6 1	Base course & Sub-base course				
6 1 (1)	Supply, Place & Compact Subbase Course (t=300)	m3	65,711	64,000	97.40%
6 1 (2)	Supply, Place & Compact Base Course (t=300mm)	m3	84,103	65,000	77.29%
6 2	Coat				
6 2 (1)	Bituminous Prime Coat (Grade MC-70 or RC-250)	m2	6,967	7,000	100.47%
6 2 (2)	Bituminous Tack Coat (Grade RC-250)	m2	3,850	2,000	51.95%
6 2 (3)	Waterproofing t=5mm	m2	6,816	7,000	102.70%
6 2 (4)	Bound Layer for Metal Bridge	m2	25,346		8,000 117.37%
					27,000 106.53%
6 3	Asphalt Concrete				
6 3 (1)	Asphalt Concrete Binder Course (t=100mm)	m2	74,080	74,000	99.89%
6 3 (2)	Asphalt Concrete Course for Metal Bridge (t=70mm)	m2	108,527	135,000	124.39%
6 3 (3)	Asphalt Concrete Surface Course (t=50mm)	m2	65,464	43,000	65.68%
6 3 (4)	Asphalt Concrete Surface Course (t=70mm) for Concrete Bridge	m2	69,991	60,000	85.73%
6 4	Gravel Road				
6 4 (1)	Granular Road (t=150mm)	m2	35,000	31,000	88.57%
7	Piling				
7 1	Piling				
7 1 (1)	Bored Piles 3000mm Dia Class C (fc=30Mpa), Including Reinforcement	m	57,027,962		69,497,000 121.86%
7 1 (2)	Bored Piles 2000mm Dia Class C (fc=30Mpa), Including Reinforcement, With Permanent Stand	m	11,912,597		5,350,000 44.91%
7 1 (3)	Bored Piles 1500mm Dia Class C (fc=30Mpa), Including Reinforcement	m	5,428,891	2,977,000	54.84%
7 1 (4)	Bored Piles 1500mm Dia Class C (fc=30Mpa), Including Reinforcement, With Permanent Stand	m	7,195,537		5,609,000 77.95%
7 1 (5)	Bored Piles 1200mm Dia Class C (fc=30Mpa), Including Reinforcement	m	3,819,290	2,009,000	52.60%
7 1 (6)	Pile Load Test A ( for Bored Piles 3000mm Dia)	Each	3,377,571,813		3,949,214,000 116.92%
7 1 (7)	Pile Load Test B ( Exclude Bored Piles 3000mm Dia)	Each	2,555,580,002	2,678,475,000	104.81%
7 1 (8)	Sonic Test for Concrete Pile	Each	28,105,526	29,585,000	105.26%
7 1 (9)	Driven Concrete Pile 450x450	m		610,000	31,258,000 111.22%

## CANTHO BRIDGE CONSTRUCTION PROJECT

CANTHO BRIDGE CONSTRUCTION PROJECT			MOT	Package 1&3	Package 2
Category	Name	Unit	Unit price	Unit price	Unit price
			Combined total price (VND)	Combined total price (VND)	Combined total price (VND)
8	Concrete Generally				
8 1	Concrete				
8 1 (1)	Concrete, Class A (fc=50Mpa)	m3	1,077,633		1,163,000 107.92%
8 1 (2)	Concrete, Class B-1 (fc=40Mpa)	m3	3,245,803	2,828,000	4,711,000 145.14%
8 1 (3)	Concrete, Class B-2 (fc=40Mpa)	m3	9,103,288		17,016,000 186.92%
8 1 (4)	Concrete, Class C (fc=35Mpa)	m3	1,544,321	1,443,000	
8 1 (5)	Concrete, Class D-1 (fc=30Mpa)	m3	820,032	1,308,000	1,110,000 135.36%
8 1 (6)	Concrete, Class D-2 (fc=30Mpa)	m3	1,190,869		1,105,000 92.79%
8 1 (7)	Concrete, Class E (fc=24Mpa)	m3	1,389,417	1,245,000	1,130,000 81.33%
8 1 (8)	Concrete, Class F (fc=15Mpa)	m3	831,131	722,000	857,000 103.11%
8 2	Steel Bars & Prestressing Tendon				
8 2 (1)	Reinforcing Steel Bars (for Pylon, Pile Cap, Cast in Place PC Box Girder, Hollow Slab, Slab&Diaphragm of I-Girder, Pier, Footing, Abutment, Approach Slab & Bridge Curb)	tonne	4,818,693	5,015,000	5,429,000 112.67%
8 2 (2)	Longitudinal Inner Prestressing Tendons at Erection (for Hollow Slab Bridge & Cast in Place PC Box Girder Bridge)	tonne	29,332,744	30,744,000	33,344,000 113.68%
8 2 (3)	Longitudinal External Prestressing Tendons, After the Erection Completed (for Cast in Place PC Box Girder Bridge)	tonne	43,310,145	45,416,000	45,584,000 105.25%
8 2 (4)	Crossing Inner Prestressing Tendons A (for I-Girder Bridge, Hollow Slab Bridge, Cast in Place PC Box Girder Bridge & Strut of Pylon)	tonne	67,915,725	63,312,000	61,996,000 91.28%
8 3	Precast I-Girder				
8 3 (1)	Precast Prestressed I-Girder, Span 40.0m	Each	374,755,381		302,410,000 80.70%
8 3 (2)	Precast Prestressed I-Girder, Span 37.00m Height 1.85m	Each	268,278,643	238,189,000	
8 3 (3)	Precast Prestressed I-Girder, Span 31.00m Height 1.85m	Each	199,125,026	183,862,000	
8 3 (4)	Precast Prestressed I-Girder, Span 31.00m Height 1.65m	Each	188,006,065	151,964,000	
8 3 (5)	Precast Prestressed I-Girder, Span 28.00m Height 1.65m	Each	146,287,542	140,768,000	
8 3 (6)	Precast Prestressed I-Girder, Span 25.00m Height 1.65m	Each	133,169,448	126,278,000	
8 3 (7)	Precast Prestressed I-Girder, Span 25.00m Height 1.45m	Each	149,666,332	132,027,000	
8 3 (8)	Precast Concrete Slabs (Class C) Between Girders t=80mm	m2	1,801,444	1,534,000	1,657,000 91.98%
8 4	Precast PC Box Girder				
8 4 (1)	Production of PC Box Girder Segment in Yard	Each	1,154,735,898		1,210,263,000 104.81%
8 4 (2)	Erection of PC Box Girder Segment at Pylon	Each	770,715,133		929,998,000 120.67%
8 4 (3)	Erection of PC Box Girder Segment Excluding Pylon	Each	576,934,317		667,724,000 115.74%
8 4 (4)	Longitudinal Inner Prestressing Tendons at Erection for Stay Cable Bridge	tonne	59,827,605		82,426,000 137.77%
8 4 (5)	PC Bar at Erection for Stay Cable Bridge	tonne	0		145,105,000
8 4 (6)	Tie Down Cable System	LS	7,516,688,386		8,788,861,000 116.92%
8 5	Culvert-Pipe				
8 5 (1)	Culvert-Pipe, f=1,500mm	m	4,394,548	4,358,000	4,707,000 107.11%

**CANTHO BRIDGE CONSTRUCTION PROJECT**

CAN THO BRIDGE CONSTRUCTION PROJECT			MOT	Package 1&3	Package 2
Category	Name	Unit	Unit price Combined total price (VND)	Unit price Combined total price (VND)	Unit price Combined total price (VND)
8 6	Culvert-Box				
8 6 (1)	Culvert-Box, Type A-s (2.50*1.50)	m	14,239,897	21,590,000	151.62%
8 6 (2)	Culvert-Box, Type A-d (2.50*1.50*2)	m	18,630,513	26,228,000	140.78%
8 6 (3)	Culvert-Box, Type B-d (2.50*2.00*2)	m	21,615,485	30,350,000	140.41%
8 6 (4)	Culvert-Box, Type C-s (3.00*3.20)	m	19,596,514	27,488,000	140.27%
8 6 (5)	Culvert-Box, Type D-s (3.00*3.50)	m	28,304,022	35,005,000	123.68%
8 6 (6)	Culvert-Box, Type E-s (3.00*3.80)	m	30,554,189	37,542,000	122.87%
8 6 (7)	Culvert-Box, Type F-s (5.00*3.80)	m	47,164,711	51,131,000	108.41%
8 6 (8)	Culvert-Box, Type G-s (5.00*4.00)	m	47,613,824	52,280,000	109.80%
8 6 (9)	Culvert-Box, Type H-s (5.00*4.50)	m	56,828,458	54,935,000	96.67%
8 6 (10)	Culvert-Box, Type H-d (5.00*4.50*2)	m	74,891,366	73,140,000	97.66%
8 6 (11)	Culvert-Box, Type I-s (6.50*4.50)	m	60,754,740	61,271,000	100.85%
9	Steel Work				
9 1	Steel Work				
9 1 (1)	Production & Fabrication of Steel Segment	tonne	39,513,650		56,448,000 142.86%
9 1 (2)	Production & Fabrication of Steel & PC Composite Segment	Each	5,833,577,218		8,452,907,000 144.90%
9 1 (3)	Steel Segment Erection	tonne	3,507,278		3,663,000 104.44%
9 1 (4)	Composite Segment Erection	Each	866,035,573		991,183,000 114.45%
10	Cable Stay Work				
10 1	Cable Stay Work				
10 1 (1)	Stay Cable Installation	tonne	74,279,882		87,623,000 117.96%
10 1 (2)	Dumper	No	67,709,076		80,672,000 119.15%



CAN THO BRIDGE CONSTRUCTION PROJECT				MOT	Package 1&3	Package 2
Category	Name	Unit	Unit price	Unit price	Unit price	Unit price
			Combined total price (VND)	Combined total price (VND)		Combined total price (VND)
11	Bearing Pad					
11 1	Bearing Pad					
11 1 (1)	Bearing Pad With Accessories, Type 1 (600*300*57) (I-girder)	No	4,349,038	4,207,000	96.73%	
11 1 (2)	Bearing Pad With Accessories, Type 2 (500*250*50) (I-girder)	No	3,039,074	2,946,000	96.94%	
11 1 (3)	Bearing Pad With Accessories, Type 3 (700*350*50) (Hollow Slab)	No	5,919,272	5,709,000	96.45%	
11 1 (4)	Bearing Pad With Accessories, Type 4 (700*350*52) (Hollow Slab)	No	5,909,924	5,709,000	96.60%	
11 1 (5)	Bearing Pad With Accessories, Type 5 (800*600*52) (Hollow Slab)	No	6,746,087	6,513,000	96.54%	
11 1 (6)	Bearing Pad With Accessories, Type 6 (1500*1400*214) (PC Box)	No	150,566,600	146,011,000	96.97%	
11 1 (7)	Bearing Pad With Accessories, Type 7 (1410*1410*214) (PC Box)	No	142,901,772	138,635,000	97.01%	
11 1 (8)	Bearing Pad With Accessories, Type 8 (660*560*125) (PC Box side span)	No	17,646,557	17,113,000	96.98%	
11 1 (9)	Bearing Pad With Accessories, Type 9 (600*400)(M) (I-Girder)	No	16,147,000			15,510,000
11 1 10	Bearing Pad With Accessories, Type 10 (600*500)(M)(I-Girder)	No	15,267,506			15,510,000
11 1 11	Bearing Pad With Accessories, Type 11 (650*550)(M)(Rmax=210)(I-Girder)	No	10,801,913			10,443,000
11 1 12	Bearing Pad With Accessories, Type 12 (650*550)(F)(Rmax=210)(I-Girder)	No	13,563,000			13,029,000
11 1 13	Bearing Pad With Accessories, Type 13 (650*550)(F)(Rmax=220)(I-Girder)	No	16,319,000			15,501,000
11 1 14	Bearing Pad With Accessories, Type 14 (720*720*130)(PC Box)	No	29,140,787			30,097,000
11 1 15	Bearing Pad With Accessories, Type 15 (1620*1620*265)(PC Box)	No	293,122,000			282,329,000
11 1 16	Bearing Pad With Accessories, Type 16 (1120*1120*437)(StayCable)	No	1,206,012,148			1,220,952,000
11 1 17	Bearing Pad With Accessories, Type 17 (1220*1220*459)(StayCable)	No	1,365,980,467			1,382,604,000
11 1 18	Bearing Pad With Accessories, Type 18 (1120*1120*424.5)(StayCable)	No	1,089,856,176			1,103,573,000
11 1 19	Bearing Pad With Accessories, Type 18 (1470*1470*424.5)(StayCable)	nos				2,102,615,000
12	Bridge Utility					
12 1	Bridge Railing & Expansion Joint					
12 1 (1)	Bridge Railing Type-A	m	1,380,194			1,441,000
12 1 (2)	Bridge Railing Type-B	m	992,776	961,000	96.80%	1,038,000
12 1 (3)	Expansion Joint, Type A (300mm)	m	99,141,269			102,581,000
12 1 (4)	Expansion Joint, Type B (100mm)	m	21,068,451	20,334,000	96.51%	21,961,000
12 1 (5)	Expansion Joint, Type C (50mm)	m	11,185,754	10,830,000	96.82%	11,696,000
12 2	Drain for Bridge					
12 2 (1)	Drain Pipe, 200mm Dia. With Fittings & Supports (PVC)	m	283,698	277,000	97.64%	297,000
12 2 (2)	Drain Pipe, 165mm Dia. With Fittings & Supports (PVC)	m	193,204	189,000	97.82%	202,000
12 2 (3)	Deck Drain With Accessories, Type 1	Each	1,886,504			1,920,000
12 2 (4)	Deck Drain With Accessories, Type 2	Each	904,535	900,000	99.50%	972,000

CAN THO BRIDGE CONSTRUCTION PROJECT			MOT	Package 1&3	Package 2
Category	Name	Unit	Unit price Combined total price (VND)	Unit price Combined total price (VND)	Unit price Combined total price (VND)
12 3	Lighting Protection System				
12 3 (1)	Lighting Protection System	set	15,566,000		15,502,000 99.59%
12 4	Navigation Aids				
12 4 (1)	Aviation Obstruction Lights System	set	2,600,884,114		2,703,851,000 103.96%
12 4 (2)	Navigation Light at Bridge	set	514,484,981		534,743,000 103.94%
12 4 (3)	Navigation Marker Buoys	set	878,169,479		912,792,000 103.94%
13	Electrical Services				
13 1	Electrical Services				
13 1 1	Lighting Pole & Lighting Fixture (Double)	nos.		13,074,000	14,120,000
13 1 2	Lighting Pole & Lighting Fixture (Single)	nos.		10,332,000	
13 1 3	Lighting Pole & Lighting Fixture (High Mast)	nos.		247,625,000	
13 1 4	Lighting in Bridge Tower including Lighting Dist Board	nos.			1,508,000
13 1 5	Foundation for Lighting Pole including any or Cables, Pipes for Cable Protection, Cable Rack, Manhole, Excavation & Backfilling for Load Lighting & LV Power Distribution System on the	nos.		19,273,000	116,143,000
13 1 6	Foundation for Lighting Pole (High Mast) including any of Cables, Pipes for Cable Protection, Cable Rack, Manhole, Excavation & Backfilling for Load Lighting & LV Power Distribution System on the	nos.		330,342,000	
13 1 7	22kV Cable including any of Pipes for Cable Protection, Cable Rack, Manhole, Excavation & Backfilling	m		818,000	1,300,000
13 1 8	Substation A 50kVA including Substation Building	nos.		1,699,078,000	
13 1 9	Substation B 100kVA including Substation Building	nos.		2,879,199,000	
13 1 10	Substation C 100kVA including Substation Building	nos.		2,585,492,000	
13 1 11	Substation D 300kVA including Substation Building	nos.			4,050,005,000
13 1 12	Substation E 200kVA including Substation Building	nos.		2,886,237,000	
13 1 13	Substation F 100kVA including Substation Building	nos.		2,159,436,000	
14	Toll Collection Systems				
14 1	Toll Collection Systems				
14 1 (1)	Toll Collection Booths (Buildings)	LS	1,254,134,588	1,308,986,000	1,413,705,000 112.72%
14 1 (2)	Concrete Pavement	m2	408,305	353,000	381,000 93.31%
14 1 (3)	Maintenance Office (Building)	LS	2,036,258,204	2,204,525,000	2,380,888,000 116.92%
15	Vehicle Guardrail, Precast Concrete km Posts				
15 1	Vehicle Guardrail, Precast Concrete km Posts				
15 1 (1)	Vehicle Guardrail (Type-A)	m	340,568	369,000	
15 1 (2)	Vehicle Guardrail (Type-B)	m	340,568	369,000	
15 1 (3)	Precast Concrete kilometer Posts	Each	349,220	303,000	



## Comparison of Project Cost for F/S and D/D Stages

\* Exchange Rate: 1USD = 127JPY = 13,950VND

	Unit: Million JPY			Unit: Million USD		
	F/S Stage (OECF Mission) Project Cost 1US\$=140JP Yen (1)	D/D Stage Final Project Cost 1US\$=108JP Yen (2)	Difference (3) = (2)-(1)	F/S Stage (OECF Mission) Project Cost 1US\$=140JP Yen (1)	D/D Stage Final Project Cost 1US\$=108JP Yen (2)	Difference (3) = (2)-(1)
1. Construction Cost	25,530	31,652	6,122	182.3	249.2	66.9
Sub Total	25,530	31,652	6,122	182.3	249.2	66.9
2. Price Escalation (BIC)	2,810	629	-2,181	20.1	5.0	-15.1
3. Physical Contingency (BIC)	2,834	1,614	-1,220	20.2	12.7	-7.5
4. Consulting service						
4-1. Detailed Design	679	0	-679	4.9	0.0	-4.9
4-2. Construction Supervision & Tender Assistan	1,413	1,721	308	10.1	13.6	3.5
Sub Total	2,092	1,721	-371	15.0	13.6	-1.4
5. Land Acquisition & Compensation (MOT)	2,150	1,361	-789	15.4	10.7	-4.7
6. Administration Cost.(MOT)	1,281	985	-296	9.2	7.8	-1.4
7. Tax % Duty (BIC)	2,798	3,165	367	20.0	24.9	4.9
8. Interest During Construction Stage (JBIC)	1,795	1,268	-527	12.8	10.0	-2.8
9. Environmental Monitoring*	-30	25	-5	-0.2	0.2	0.0
10. UXO Cost* (MOT)	-57	102	45	-0.4	0.8	0.4
Sub Total	15,760	10,870	14,564	112.7	85.6	-27.7
Total	41,290	42,522	1,232	295.0	334.8	39.2

Remarks: "9. Environmental Monitoring" and "10. UXO Cost" were included in the "1. Construction Cost" at the F/S Stage.

## Comparison of Project Cost for F/S and D/D Stages

\* Exchange Rate: 1USD = 108JPY = 14,100VND

	Unit: Million JPY			Unit: Million USD		
	F/S Stage (OECF Mission) Project Cost 1US\$=140JP Yen (1)	D/D Stage Final Project Cost 1US\$=108JP Yen (2)	Difference (3) = (2)-(1)	F/S Stage (OECF Mission) Project Cost 1US\$=140JP Yen (1)	D/D Stage Final Project Cost 1US\$=108JP Yen (2)	Difference (3) = (2)-(1)
1. Construction Cost	25,530	28,726	3,196	182.3	265.6	83.3
Sub Total	25,530	28,726	3,196	182.3	265.6	83.3
2. Price Escalation (JBIC)	2,810	587	-2,223	20.1	5.4	-14.7
3. Physical Contingency (JBIC)	2,834	1,466	-1,368	20.2	13.6	-6.6
4. Consulting service	0				0.0	
4-1. Detailed Design	679	0	-679	4.9	0.0	-4.9
4-2. Construction Supervision & Tender Assistant	1,413	1,721	308	10.1	15.9	5.8
Sub Total	2,092	1,721	-371	15.0	15.9	0.9
5. Land Acquisition & Compensation (MOT)	2,150	1,158	-992	15.4	10.7	-4.7
6. Administration Cost (MOT)	1,281	837	-444	9.2	7.8	-1.5
7. Tax % Duty (JBIC)	2,798	2,873	75	20.0	26.6	6.6
8. Interest During Construction Stage (JBIC)	1,795	1,155	-640	12.8	10.7	-2.1
9. Environmental Monitoring*	-30	22	-8	-0.2	0.2	0.0
10. UXO Cost* (MOT)	-57	86	29	-0.4	0.8	0.4
Sub Total	15,760	9,905	-5,942	112.7	91.8	-21.6
Total	41,290	38,631	-2,659	295.0	357.4	61.7

Remarks: "9. Environmental Monitoring" and "10. UXO Cost" were included in the "1. Construction Cost" at the F/S Stage.

## INCREASE OF CONSTRUCTION COST

1.0USD=127JPY=13,950VND

UNIT:Million JPY &amp; Million USD

No	Revised Items		F/S Stage (OECF Mission) Project Cost	D/D Stage Final Project Cost	Percent of Increase and Decrease	
1	Interchange	R54	Earth Works	0.00	100.70	
			Bridge Works	0.00	131.60	
			Sub Total	0.00	232.30	
		R91	Earth Works	0.00	262.80	
			Bridge Works	0.00	231.30	
			Sub Total	0.00	494.10	
		Sub Total	Earth Works	0.00	363.50	
			Bridge Works	0.00	362.90	
			Sub Total	0.00	726.40	
		Difference	Million USD	5.72		
Million JPY	726.40					
					11.87%	
2	Project Length	Length	Km	14.52	15.55	
		Difference	Km	1.03		
		Unit Price	Thousand \ /m	217.61		
		Amount	Million USD	1.76		
			Million JPY	224.14		
					3.66%	
3	Minor Bridge Longitudinal Gradation Navigational Clearance Limited Embankment  Height(Location of Abutment)	Number		18.00	10.00	
		Total Length		980.00	1,499.20	
		Cost	Million USD	16.26	25.81	
			Million JPY	2,065.08	3,277.32	
		Difference	Million USD	16.58		
			Million JPY	2,105.56		
					34.39%	
4	Supper Structure of Cable Stayed Bridge. ( Not include the Viaduct Area.)	Width	m	23.10	23.10	
		Length	m	1,040.00	1,090.00	
		Cost	Million USD	77.25	95.15	
			Million JPY	9,810.12	12,084.11	
		Difference	Million USD	17.91		
			Million JPY	2,274.00		
					37.14%	
5	Cap of Foundation of Tower	Length	m	75.00	91.00	
		Width	m	32.00	28.50	
		Thickness	m	7.00	9.00	
		Cost	Million USD	3.62	2.36	
			Million JPY	459.74	300.06	
		Difference	Million USD	-1.26		
			Million JPY	-159.68		
					-2.61%	
6	Penetration Level of Foundation of Tower	Type		Open Caisson	Cast in Place	
		Dia.		10.0m	3.0m	
		Number		12.00	80.00	
		Length		90.00	100.00	
		Cost	Million USD	19.15	39.85	
			Million JPY	2,431.59	5,061.57	
		Difference	Million USD	20.71		
			Million JPY	2,629.98		
					42.96%	

No	Revised Items		F/S Stage (OECF Mission) Project Cost	D/D Stage Final Project Cost	Percent of Increase and Decrease	
7	Side Piers of Cable Stay Bridge	Number		4.00	6.00	3.97%
		Sub Structure	Million USD	0.50	2.83	
			Million JPY	63.12	358.90	
		Foundation	Million USD	2.57	2.15	
			Million JPY	326.02	273.17	
		Total	Million USD	3.06	4.98	
			Million JPY	389.14	632.07	
Difference	Million USD	1.91				
	Million JPY	242.93				
8	Viaduct area in Vinh Long Side	Length	m	350m	480m	-10.38%
		Super Structure		Pc-Box Girder	PC-I-Girder	
		Foundation	Million USD	1.74	2.04	
			Million JPY	221.10	258.48	
		Substructure	Million USD	1.26	1.53	
			Million JPY	159.86	193.97	
		Superstructure	Million USD	9.94	4.37	
			Million JPY	1,262.01	555.35	
		Total	Million USD	12.94	7.94	
			Million JPY	1,642.97	1,007.79	
Difference	Million USD	-5.00				
	Million JPY	-635.18				
9	Viaduct area in Can Tho Side (Viaduct & Pc-Box Girder)	Length	m	1225m	1180m	-51.68%
		Super Structure		Pc-Box Girder	PC-I-Girder	
		Foundation	Million USD	7.91	5.82	
			Million JPY	1,004.00	738.64	
		Substructure	Million USD	4.24	4.11	
			Million JPY	539.10	522.16	
		Superstructure	Million USD	34.51	11.82	
			Million JPY	4,382.99	1,501.55	
		Total	Million USD	46.66	21.75	
			Million JPY	5,926.09	2,762.35	
Difference	Million USD	-24.91				
	Million JPY	-3,163.74				
10	Soft Ground Treatment	Cost	Million USD	1.37	4.09	5.63%
			Million JPY	174.58	519.37	
		Difference	Million USD	2.71		
			Million JPY	344.79		
11	Total Width of Typical Cross section	Width	m	23.10	24.10	0.10%
		Length	m	10,927.00	11,599.00	
		Cost	Million JPY	81.62	87.94	
		Difference	Million USD	0.05		
			Million JPY	6.32		
12	Mobilization & Demobilization	Cost	Million JPY	1,394.00	2,920.62	24.94%
		Difference	Million USD	12.02		
			Million JPY	1,526.62		
<b>TOTAL INCREASE OF CONSTRUCTION COST</b>		Million USD	48.21		100.00%	
		Million JPY	6,122.13			

## *Appendix 8*

### **FINANCIAL ANALYSIS**

8.1	COST AND BENEFIT FLOWS FOR ECONOMIC EVALUATION (FEASIBILITY STUDY STAGE)	A8-1
8.2	COST AND BENEFIT FLOWS FOR ECONOMIC EVALUATION (DETAILED DESIGN STAGE)	A8-2



Cost and Benefit Flows for Economic Evaluation (C-2/3) 8.1 Cost and Benefit Flows for Economic Evaluation (Feasibility Study Stage)

(Unit: 1,000US\$)

Year	Costs				Benefit				Discounted (%)					
	Investment		Maintenance & Exogenous		Savings in Time Costs & VOCs		Increase in Land Potential		Investment		Maintenance & Exogenous		Savings in Time Costs & VOCs	
	Total	Benefit	Total	Benefit	Total	Benefit	Total	Benefit	Total	Benefit	Total	Benefit	Total	Benefit
1999	3,385	0	0	0	0	0	0	0	3,385	0	0	0	0	0
2000	4,765	0	0	0	0	0	0	0	4,412	0	0	0	0	0
2001	9,279	0	0	0	0	0	0	0	7,955	0	0	0	0	0
2002	34,946	0	0	0	0	0	0	0	27,741	0	0	0	0	0
2003	72,386	0	0	0	0	0	0	0	53,206	0	0	0	0	0
2004	63,521	0	0	0	0	0	0	0	43,232	0	0	0	0	0
2005	3,213	0	0	0	0	0	0	0	2,025	0	0	0	0	0
2006	0	83	6,211	6,490	0	14,265	0	26,906	0	49	3,624	3,752	0	15,699
2007	0	83	7,890	2,430	0	0	0	10,320	0	45	4,362	1,313	0	5,575
2008	0	83	9,568	2,430	0	0	0	11,998	0	42	4,786	1,216	0	6,002
2009	0	83	11,246	2,430	0	0	0	13,676	0	39	5,209	1,126	0	6,335
2010	0	83	12,924	15,880	0	0	0	28,804	0	36	5,543	6,811	0	12,354
2011	0	83	16,479	3,780	0	0	0	20,259	0	33	6,544	1,901	0	8,045
2012	0	83	20,033	3,780	0	0	0	23,813	0	31	7,366	1,390	0	8,756
2013	0	83	23,587	3,780	0	0	0	27,367	0	28	8,031	1,287	0	9,318
2014	0	83	27,142	3,780	0	0	0	30,922	0	26	8,556	1,192	0	9,748
2015	0	83	30,696	37,400	0	0	0	68,096	0	24	8,960	10,917	0	19,877
2016	0	83	34,250	5,400	0	0	0	39,650	0	23	9,461	9,257	0	10,716
2017	0	83	37,805	5,400	0	0	0	43,205	0	21	9,961	8,559	0	10,812
2018	0	83	41,359	5,400	0	0	0	46,759	0	19	9,583	7,851	0	10,835
2019	0	83	44,914	5,400	0	0	0	50,314	0	18	9,636	7,143	0	10,795
2020	0	83	48,468	42,250	0	0	0	90,718	0	17	9,628	8,393	0	18,023
2021	0	83	52,022	9,450	0	0	0	61,472	0	15	9,569	7,758	0	11,307
2022	0	83	55,577	9,450	0	0	0	65,027	0	14	9,466	7,059	0	11,075
2023	0	83	59,131	9,450	0	0	0	68,581	0	13	9,323	6,360	0	10,815
2024	0	83	62,685	9,450	0	0	0	72,135	0	12	9,183	5,661	0	10,333
2025	0	83	66,240	9,450	0	0	0	75,690	0	11	9,043	4,962	0	10,233
2026	0	83	66,240	9,450	0	0	0	75,690	0	10	8,903	4,263	0	9,475
2027	0	83	66,240	9,450	0	0	0	75,690	0	10	8,763	3,564	0	8,773
2028	0	83	66,240	9,450	0	0	0	75,690	0	9	8,623	2,865	0	8,124
2029	0	83	66,240	9,450	0	0	0	75,690	0	8	8,483	2,166	0	7,522
2030	0	83	66,240	9,450	0	0	0	75,690	0	8	8,343	1,467	0	6,965
2031	0	83	66,240	9,450	0	0	0	75,690	0	7	8,203	766	0	6,449
2032	0	83	66,240	9,450	0	0	0	75,690	0	7	8,063	0	0	5,971
2033	0	83	66,240	9,450	0	0	0	75,690	0	6	7,923	690	0	5,529
2034	0	83	66,240	9,450	0	0	0	75,690	0	6	7,783	639	0	5,119
2035	0	83	66,240	9,450	0	0	0	75,690	0	5	7,643	592	0	4,740
2036	0	83	66,240	9,450	0	0	0	75,690	0	5	7,503	548	0	4,389
2037	0	83	66,240	9,450	0	0	0	75,690	0	4	7,363	507	0	4,064
2038	0	83	66,240	9,450	0	0	0	75,690	0	4	7,223	470	0	3,763
2039	0	83	66,240	9,450	0	0	0	75,690	0	4	7,083	435	0	3,484
2040	0	83	66,240	9,450	0	0	0	75,690	0	4	6,943	403	0	3,226
2041	0	83	66,240	9,450	0	0	0	75,690	0	3	6,803	373	0	2,987
2042	0	83	66,240	9,450	0	0	0	75,690	0	3	6,663	345	0	2,766
2043	0	83	66,240	9,450	0	0	0	75,690	0	3	6,523	320	0	2,561
2044	0	83	66,240	9,450	0	0	0	75,690	0	3	6,383	296	0	2,371
2045	0	83	66,240	9,450	0	0	0	75,690	0	2	6,243	274	0	2,198
2046	0	83	66,240	9,450	0	0	0	75,690	0	2	6,103	254	0	2,033
2047	0	83	66,240	9,450	0	0	0	75,690	0	2	5,963	235	0	1,882
2048	0	83	66,240	9,450	0	0	0	75,690	0	2	5,823	218	0	1,743
2049	0	83	66,240	9,450	0	0	0	75,690	0	2	5,683	201	0	1,614
2050	0	83	66,240	9,450	0	0	0	75,690	0	2	5,543	187	0	1,494
2051	0	83	66,240	9,450	0	0	0	75,690	0	2	5,403	173	0	1,384
2052	0	83	66,240	9,450	0	0	0	75,690	0	1	5,263	160	0	1,281
2053	0	83	66,240	9,450	0	0	0	75,690	0	1	5,123	148	0	1,186
2054	0	83	66,240	9,450	0	0	0	75,690	0	1	4,983	137	0	1,098
2055	0	83	66,240	9,450	0	0	0	75,690	0	1	4,843	890	0	1,017

NPV = 142,971  
 B/C ratio = 2.003  
 IRR = 13.47%

8.2 Cost and Benefit Flows for Economic Evaluation (Detailed Design Stage)

Cost and Benefit Flows for Economic Evaluation (C-2/3)

Hybrid Cable System (C-2)

(Unit: 1,000 US\$)

Year	Costs			Benefits			Discounted (8%)			Total	Increase in Land Potential	Savings in Ferry Operation	Savings in Time Costs & VOCr	Maintenance & Repairs	Total	Increase in Land Potential	Savings in Ferry Operation	Savings in Time Costs & VOCr	Total	
	Investment	Maintenance & Repairs	Total	Investment	Maintenance & Repairs	Total	Investment	Maintenance & Repairs	Total											
2000	486	0	486	0	0	0	0	0	0	0	0	486	0	0	0	0	0	0	0	0
2001	138	0	138	0	0	0	0	0	0	0	0	138	0	0	0	0	0	0	0	0
2002	9,635	0	9,635	0	0	0	0	0	0	0	0	9,635	0	0	0	0	0	0	0	0
2003	58,569	0	58,569	0	0	0	0	0	0	0	0	58,569	0	0	0	0	0	0	0	0
2004	79,941	0	79,941	0	0	0	0	0	0	0	0	79,941	0	0	0	0	0	0	0	0
2005	49,407	0	49,407	0	0	0	0	0	0	0	0	49,407	0	0	0	0	0	0	0	0
2006	23,718	0	23,718	0	0	0	0	0	0	0	0	23,718	0	0	0	0	0	0	0	0
2007	0	132	132	6,418	0	6,418	14,263	0	0	14,263	0	0	0	0	0	0	0	0	0	14,263
2008	0	132	132	2,478	0	2,478	10,320	0	0	10,320	0	0	0	0	0	0	0	0	0	10,320
2009	0	132	132	3,478	0	3,478	11,988	0	0	11,988	0	0	0	0	0	0	0	0	0	11,988
2010	0	132	132	2,650	0	2,650	11,676	0	0	11,676	0	0	0	0	0	0	0	0	0	11,676
2011	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2012	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2013	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2014	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2015	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2016	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2017	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2018	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2019	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2020	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2021	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2022	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2023	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2024	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2025	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2026	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2027	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2028	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2029	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2030	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2031	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2032	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2033	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2034	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2035	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2036	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2037	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2038	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2039	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2040	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2041	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2042	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2043	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2044	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2045	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2046	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2047	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2048	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2049	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2050	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2051	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2052	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2053	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2054	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2055	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876
2056	0	132	132	3,780	0	3,780	12,876	0	0	12,876	0	0	0	0	0	0	0	0	0	12,876

NPV = 121,676  
 IRR = 12.49%







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