

**KOREA WATER RESOURCES CORPORATION  
AND SUBSIDIARIES**

**CONSOLIDATED FINANCIAL STATEMENTS  
DECEMBER 31, 2019 AND 2018**

**WITH INDEPENDENT AUDITORS' AUDIT REPORT**

## Contents

	<b>Page</b>
<b>Independent Accountants' Audit Report</b>	1
Consolidated Statements of Financial Position	6
Consolidated Statements of Comprehensive Income	8
Consolidated Statements of Changes in Shareholders' Equity	10
Consolidated Statements of Cash Flows	11
Notes to the consolidated Financial Statements	13



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## Independent Auditors' Audit Report

(Based on a report originally issued in Korean)

To the Board of Directors and Shareholders of  
Korea Water Resources Corporation:

### Opinion

We have audited the accompanying consolidated financial statement of Korea Water Resources Corporation and its subsidiaries (the "Group"). The consolidated financial statements consist of the consolidated statements of financial position as of December 31, 2019 and 2018, and the related consolidated statements of comprehensive income, consolidated statements of changes in shareholders' equity and consolidated statements of cash flows, all expressed in Korean won, for the years then ended, and a summary of significant accounting policies and other explanatory information.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at December 3, 2019 and 2018, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with Korean government-owned and Quasi-government Accounting Regulations and Standards

### Basis for Opinion

We conducted our audits in accordance with Korean Standards on Auditing. Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of our report. We are independent of the Group in accordance with the ethical requirements of the Republic of Korea that are relevant to our audit of the financial statements and we have fulfilled our other ethical responsibilities in accordance with the ethical requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### Emphasis of matter

As described in Note 2 to the consolidated financial statements, matters not described in Korean government-owned and Quasi-government Accounting Regulations and Standards relating to accounting are recognized in accordance with K-IFRS.

## **Responsibilities of Management and Those Charged with Governance for the consolidated financial statements**

The Group's management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with Korean government-owned and Quasi-government Accounting Regulations and Standards, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management of the Group is responsible for assessing the Group's ability to continue as a going concern; disclosing, as applicable, matters related to going concern and using the going concern basis of accounting, unless management either intends to liquidate the Group, or to cease operations, or has no realistic alternative, but to do so.

Those charged with governance's responsibilities include overseeing the Group's financial reporting process.

## **Auditors' responsibilities for the Audit of the Consolidated Financial Statements**

Our responsibility is to express a conclusion on these consolidated financial statements based on our audit.

We conducted our audit in accordance with standards for audit of consolidated financial statements in the Republic of Korea. An audit is limited primarily to inquiries of Group personnel and analytical procedures applied to financial data, and this provides less assurance than an audit. We have not performed an audit, and accordingly, we do not express an audit opinion.

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with KSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with KSAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, design and perform audit procedures responsive to those risks and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of the management's use of the going-concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the Group audit. We are solely responsible for our audit opinion.

We communicate with those charged with governance of the Group regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

February 24, 2019

*Nexia Samduk*

Seoul, Korea

This report is effective as of the auditors' audit report date. Accordingly, certain subsequent events or circumstances may have occurred between the auditors' audit report date and the time this report is read. Such events and circumstances could significantly affect the accompanying financial statements and may result in modifications to this report.

**KOREA WATER RESOURCES CORPORATION  
AND SUBSIDIARIES (the “Group”)**

**CONSOLIDATED FINANCIAL STATEMENTS  
DECEMBER 31, 2019 AND 2018**

The accompanying consolidated financial statements, including all footnote disclosures, were prepared by, and are the responsibility of, the Group.

**Lee, Hak Soo  
Chief Executive Officer  
Korea Water Resources Corporation.**

**KOREA WATER RESOURCES CORPORATION AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF FINANCIAL POSITION**  
**AS OF DECEMBER 31, 2019 AND 2018**

	Notes	December 31, 2019	December 31, 2018
(In thousands of Korean won)			
<b>ASSETS</b>			
<b>CURRENT ASSETS</b>			
Cash and cash equivalents	5,6,39,40	₩147,824,152	₩264,522,916
Short-term financial assets	7,10,11,39,40	3,029,858	136,186,807
Trade and other receivables, net	8,17,39,40	720,117,575	766,712,676
Inventories	12	7,452,896,707	6,932,769,035
Current tax assets	37	5,073,135	56,549
Other non-financial assets	13	176,626,377	108,030,090
<b>TOTAL CURRENT ASSETS</b>		<b>8,505,567,804</b>	<b>8,208,278,073</b>
<b>NON-CURRENT ASSETS</b>			
Non-current financial assets at FVPL	7,39,40	7,292,929	2,387,228
Non-current financial assets at FVOCI	9,39,40	26,294,255	26,480,662
Long-term loans	11,39,40	14,991,463	16,237,327
Non-current derivative assets	7,39,40	79,457,604	65,161,316
Long-term trade and other receivables, net	8,39,40	719,159,977	639,789,671
Property, plant and equipment	15,21,24	1,746,540,269	1,713,823,552
Intangible assets other than goodwill	16,24,25	11,020,135,378	11,018,728,999
Investments in associates	14	65,833,497	67,292,756
Non-current deferred tax asset	37	65,627,785	34,814,380
Other non-financial assets	13	3,849,347	3,763,960
<b>TOTAL NON-CURRENT ASSETS</b>		<b>13,749,182,504</b>	<b>13,588,479,851</b>
<b>TOTAL ASSETS</b>		<b>₩22,254,750,308</b>	<b>₩21,796,757,924</b>

(Continued)

**KOREA WATER RESOURCES CORPORATION AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF FINANCIAL POSITION**  
**AS OF DECEMBER 31, 2019 AND 2018**

		December 31, 2019	December 31, 2018
		(In thousands of Korean won)	
<b>LIABILITIES</b>			
<b>CURRENT LIABILITIES</b>			
Trade and other payables	18,21,39,40	₩434,408,091	₩358,038,275
Short-term borrowings	19,39,40	-	42,805,666
Current portion of long-term borrowings	19,39,40	39,491,452	46,446,021
Current portion of debentures, net	19,39,40	1,040,499,000	1,155,190,000
Current derivative liabilities	7,39,40	1,447,379	-
Current tax liabilities	37	317,251	10,619,859
Current other liabilities	17,26	1,543,505,192	1,191,566,141
Current provisions	23	142,509,952	96,805,174
<b>TOTAL CURRENT LIABILITIES</b>		<b>3,202,178,317</b>	<b>2,901,471,136</b>
<b>NON-CURRENT LIABILITIES</b>			
Lease liabilities	18,21,39,40	2,482,151	-
Long-term borrowings	19,39,40	653,784,025	505,036,441
Debentures, net	19,39,40	9,727,361,020	10,279,771,435
Non-current derivative liabilities	7,39,40	20,816,594	42,484,008
Other non-current liabilities	25,26	46,262,105	46,513,761
Net defined benefit liabilities	22	266,386,864	199,964,108
Non-current deferred tax liabilities	37	58,149	58,149
Non-current provisions	23,44	-	34,330,845
<b>TOTAL NON-CURRENT LIABILITIES</b>		<b>10,717,150,908</b>	<b>11,108,158,747</b>
<b>TOTAL LIABILITIES</b>		<b>13,919,329,225</b>	<b>14,009,629,883</b>
<b>EQUITY</b>			
Issued capital	1,27	8,890,120,337	8,477,497,133
Undisposed deficits	28,29	(557,490,403)	(677,322,794)
Other equity components	30	(45,799,864)	(54,592,098)
<b>EQUITY ATTRIBUTABLE TO OWNERS OF THE PARENT</b>		<b>8,286,830,070</b>	<b>7,745,582,241</b>
<b>NON-CONTROLLING INTERESTS</b>		<b>48,591,013</b>	<b>41,545,800</b>
<b>TOTAL EQUITY</b>		<b>8,335,421,083</b>	<b>7,787,128,041</b>
<b>TOTAL EQUITY AND LIABILITIES</b>		<b>₩22,254,750,308</b>	<b>₩21,796,757,924</b>

See accompanying notes to the consolidated financial statements.

**KOREA WATER RESOURCES CORPORATION AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME**  
**FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018**

	Notes	2019	2018
		(In thousands of Korean won)	
REVENUE	4,31,41,42	₩2,971,689,756	₩3,391,568,200
COST OF SALES	38,42	<u>(2,436,366,743)</u>	<u>(2,745,360,887)</u>
GROSS PROFIT		535,323,013	646,207,313
Selling, general and administrative expenses	32,38	<u>(206,574,046)</u>	<u>(170,185,388)</u>
OPERATING PROFIT		328,748,967	476,021,925
Other income	33	40,728,914	140,704,615
Other expenses	33	(75,336,172)	(20,145,814)
Other gain (loss), net	34	288,584	440,813
Financial income	35,39	149,239,658	64,616,948
Financial costs	36,39	(333,776,578)	(380,958,483)
Loss on valuation of investments in associates	14	<u>(6,197,441)</u>	<u>(7,140,614)</u>
PROFIT BEFORE INCOME TAX EXPENSE		103,695,932	273,539,390
Income tax expense (profit)	37	<u>(26,877,572)</u>	<u>33,365,610</u>
PROFIT FOR THE PERIOD		130,573,504	240,173,780
<b>OTHER COMPREHENSIVE INCOME</b>			
Items that will not be reclassified to profit or loss:			
Actuarial loss on defined benefit plan	22,28	(8,407,443)	(8,210,811)
Loss on valuation of financial assets at FVOCI	9,30	(65,215)	(31,496)
Total items that will not be reclassified to profit or loss		(8,472,658)	(8,242,307)
Items that are or may be reclassified subsequently to profit or loss:			
Effective portion of unrealized change in fair values of cash flow hedges		(2,607,221)	(3,733,384)
Foreign currency translation differences for foreign operations		7,029,839	(18,690,433)
Increase(decrease) on equity of equity-method investment		4,695,792	(592,209)
Total items that are or may be reclassified subsequently to profit or loss		9,118,410	(23,016,026)
OTHER COMPREHENSIVE INCOME (LOSS) FOR THE PERIOD, NET OF INCOME TAX		645,752	(31,258,333)
TOTAL COMPREHENSIVE INCOME FOR THE PERIOD		<u>₩131,219,256</u>	<u>₩208,915,447</u>

(Continued)

**KOREA WATER RESOURCES CORPORATION AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME**  
**FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018**

	2019	2018
	(In thousands of Korean won)	
Profit attributable to:		
Owners of the Parent	₩128,239,835	₩240,448,793
Non-controlling interests	2,333,669	(275,013)
<b>PROFIT FOR THE PERIOD</b>	<b>130,573,504</b>	<b>240,173,780</b>
 Total comprehensive income attributable to:		
Owners of the Parent	128,276,049	214,322,886
Non-controlling interests	2,943,207	(5,407,439)
<b>TOTAL COMPREHENSIVE INCOME FOR THE PERIOD</b>	<b>₩131,219,256</b>	<b>₩208,915,447</b>

See accompanying notes to the consolidated financial statements.

**KOREA WATER RESOURCES CORPORATION AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY**  
**FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018**

	Equity attributable to owners of the Group			Subtotal	Non-controlling interests	Total equity
	Issued capital	Undisposed deficit	Other equity components			
	(In thousands of Korean won)					
Balance at January 1, 2018	₩8,101,944,481	(₩864,040,732)	(₩37,848,682)	₩7,200,055,067	₩33,949,092	₩7,234,004,159
Accumulated effect of change on accounting policies	-	(45,520,045)	59,037	(45,461,008)	-	(45,461,008)
Comprehensive income for the period						
Profit for the period	-	240,448,793	-	240,448,793	(275,013)	240,173,780
Other comprehensive income	-	(8,210,811)	(17,915,096)	(26,125,907)	(5,132,426)	(31,258,333)
Total comprehensive income for the period	-	232,237,982	(17,915,096)	214,322,886	(5,407,439)	208,915,447
Transactions with owners of the Group						
Increase in paid-in capital	375,552,653	-	-	375,552,653	14,116,790	389,669,443
Others	-	-	1,112,643	1,112,643	(1,112,643)	-
Total transactions with owners of the Group	375,552,653	-	1,112,643	376,665,296	13,004,147	389,669,443
Balance at December 31, 2018	₩8,477,497,134	(₩677,322,795)	(₩54,592,098)	₩7,745,582,241	₩41,545,800	₩7,787,128,041
Balance at January 1, 2019	₩8,477,497,134	(₩677,322,795)	(₩54,592,098)	₩7,745,582,241	₩41,545,800	₩7,787,128,041
Comprehensive income for the period						
Profit for the period	-	128,239,835	-	128,239,835	2,333,669	130,573,504
Other comprehensive income	-	(8,407,443)	8,443,657	36,214	609,538	645,752
Total comprehensive income for the period	-	119,832,392	8,443,657	128,276,049	2,943,207	131,219,256
Transactions with owners of the Group						
Increase in paid-in capital	412,623,203	-	-	412,623,203	4,450,583	417,073,786
Others	-	-	348,577	348,577	(348,577)	-
Total transactions with owners of the Group	412,623,203	-	348,577	412,971,780	4,102,006	417,073,786
Balance at December 31, 2019	₩8,890,120,337	(₩557,490,403)	(₩45,799,864)	₩8,286,830,070	₩48,591,013	₩8,335,421,083

See accompanying notes to the consolidated financial statements

**KOREA WATER RESOURCES CORPORATION AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
**FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018**

	Notes	2019	2018
		(In thousands of Korean won)	
Cash flows from operating activities			
Profit for the period		₩130,573,504	₩240,173,780
Adjustments for:			
Post-employment benefits	22	65,449,002	31,570,690
Depreciation	4,15	103,164,097	89,252,351
Amortization	16	488,747,848	553,056,848
Bad debt expenses	8	3,133,167	1,098,015
Transfer of provisions	23	127,700,571	(28,723,838)
Gain on disposal of property, plant and equipment		(1,818,295)	(999,291)
Loss on disposal of property, plant and equipment		1,381,206	292,573
Loss on disposal of intangible assets		-	219,570
Loss on disposal of inventories	35	148,505	46,335
Interest income	36	(12,164,069)	(8,135,331)
Interest expenses		227,661,661	242,369,544
Gain on valuation of financial assets at FVPL	7,35	(6,148)	-
Loss on valuation of financial assets at FVPL	7,36	27,638	24,772
Dividend income		-	(30,521)
Gain on valuation of derivative instruments	35	(39,225,000)	(34,547,000)
Gain on transaction of derivative instruments, net	35	-	(6,894,000)
Loss on transaction of derivative instruments, net	36	-	810,000
Gain on foreign currency transactions	35	(226,448)	(977,311)
Loss on foreign currency transactions	36	1,060	4,818,738
Gain on foreign currency translation	35	(65,855)	(74,227)
Loss on foreign currency translation	36	40,494,080	34,547,000
Loss on valuation of investments in associates		6,197,441	7,140,614
Income tax expense		(27,171,772)	33,365,610
Others, net		(461,548)	(1,328,494)
Changes in:			
Trade receivables		(5,958,733)	(13,160,637)
Inventories		(389,071,619)	(383,227,528)
Other operating assets		(47,120,726)	(79,770,218)
Long-term trade receivables		(66,318,996)	40,470,509
Trade payables		565,546	(3,994,396)
Other operating liabilities		361,230,281	(6,484,338)
Assets for defined benefit plan		(4,095,683)	54,461
Payment of employee benefits		(5,436,067)	(6,823,830)
Cash generated from operating activities		<u>957,334,647</u>	<u>704,140,450</u>

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**KOREA WATER RESOURCES CORPORATION AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
**FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018**

	Notes	2019	2018
		(In thousands of Korean won)	
Dividends received		₩33,176	₩30,521
Interest received		37,365,099	8,166,916
Interest paid		(407,829,995)	(388,966,273)
Income taxes refunded (paid)		(5,195,825)	420,189
Net cash provided by operating activities		<u>581,707,103</u>	<u>323,791,803</u>
Cash flows from investing activities			
Acquisition of short-term financial instruments			(110,588,975)
Disposal of short-term financial instruments		134,486,394	
Acquisition of financial assets at FVPL		(5,711,359)	-
Disposal of financial assets at FVPL		887,704	-
Increase in loans		(1,025,482)	(951,185)
Decrease in loans		2,239,743	9,416,679
Increase in deposits		(77,982,450)	(83,681,734)
Decrease in deposits		51,007,896	67,464,594
Acquisition of property, plant and equipment		(124,336,474)	(226,531,726)
Disposal of property, plant and equipment			16,586,098
Acquisition of intangible assets		(558,138,080)	(703,017,379)
Disposal of intangible assets		74,662,179	164,701,545
Receipt of government grants		1,216,260	-
Collection of construction charge		200,000	5,403,116
Acquisition of investments in subsidiaries and associates		(42,390)	(4,558,000)
Net cash used in investing activities		<u>(502,536,059)</u>	<u>(865,756,967)</u>
Cash flows from financing activities			
Repayment of lease liabilities		(3,888,321)	-
Repayment of current portion of long-term liabilities		(22,405,600)	(64,402,646)
Settlement of derivatives		(1,269,071)	(5,523,641)
Repayment of debentures		(1,354,963,552)	(1,351,541,500)
Proceeds from debentures		648,190,000	1,469,142,000
Proceeds (repayment) from short-term borrowings		(42,805,666)	37,786,916
Proceeds from long-term borrowings		164,198,615	170,491,621
Cash contribution of Government and Local Government		412,623,204	375,552,653
Increase in non-controlling interests		4,450,583	14,116,790
Net cash provided in financing activities		<u>(195,869,808)</u>	<u>645,622,193</u>
Net increase in cash and cash equivalents		(116,698,764)	103,657,029
Cash and cash equivalents at January 1		264,522,916	160,865,887
Cash and cash equivalents at December 31		<u>₩147,824,152</u>	<u>₩264,522,916</u>

See accompanying notes to the consolidated financial statements.

**KOREA WATER RESOURCES CORPORATION AND SUBSIDIARIES**  
**NOTES TO THE CONSOLIDATED**  
**FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2019 AND 2018, AND**  
**FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018**

**1. REPORTING ENTITY:**

Korea Water Resources Development Corporation (“KWRDC”) was incorporated in 1967 in accordance with the Korea Water Resources Development Corporation Act of the Republic of Korea.

KWRDC was reorganized as Industrial Sites & Water Resources Development Corporation on December 24, 1973, pursuant to the Act for Promotion of Industrial Site Development and had been reorganized again as Korea Water Resources Corporation (the “Parent”), pursuant to the Korea Water Resources Corporation Act (the “K-water Act”) on July 1, 1988.

The Parent is engaged in the business of promoting public interests by developing and managing water resources, facilitating water supply and improving the quality of water. In addition, the Parent is involved in development projects for industrial complexes and special-purpose areas in accordance with the K-water Act.

As of December 31, 2019, issued capital of the Parent amounts to ₩8,901 billion, and the present ownership of the Parent is as follows:

	(Unit: In thousands of Korean won)	
	Share capital	Percentage of ownership
Government of the Republic of Korea	₩8,292,549,916	93.2%
Korea Development Bank	601,390,088	6.7%
Local government	7,026,279	0.1%
	₩8,900,966,283	100.0%

Details of financial information for the consolidated subsidiaries as of and for the twelve-month period ended December 31, 2019 and 2018, are as follows:

(i) December 31, 2019

Consolidated subsidiary	Location	Percentage of shareholding	(Unit: In thousands of Korean won)			
			Assets	Liabilities	Revenue	Net profit (loss)
KDS Hydro Pte. Ltd.	Singapore	80.00%	₩514,691,366	₩357,221,600	₩22,968,651	₩15,122,254
Waterway Plus Co., Ltd.	Korea	100.00%	6,913,751	1,465,736	10,248,000	(96,979)
K-Water Thailand Co., Ltd.	Thailand	99.99%	6,080	731	-	(586)
JSC Nenskra Hydro	Georgia	93.01%	202,676,927	1,183,804	-	(9,350,808)
Tina Hydro Power Limited	Solomon Island	80.00%	20,333,694	16,350,455	2,828,016	29,776
K-Water operation management	Korea	100.00%	2,007,909	1,300,688	29,245,688	192,705
Hasang O&M	Indonesia	94.99%	995,791	14,908	365,036	148,539
Patrind O&M	Pakistan	100.00%	3,114,181	2,382,349	2,643,287	326,863

(ii) December 31, 2018

Consolidated subsidiary	Location	Percentage of shareholding	(iii) (Unit: In thousands of Korean won)			
			Assets	Liabilities	Revenue	Net profit (loss)
KDS Hydro Pte. Ltd.	Singapore	80.00%	₩497,651,199	₩355,945,244	₩16,467,991	₩1,184,200
Waterway Plus Co., Ltd.	Korea	100.00%	7,077,683	1,530,548	9,969,896	41,593
K-Water Thailand Co., Ltd.	Thailand	99.99%	6,612	1,323	-	(1,811)
JSC Nenskra Hydro	Georgia	93.01%	189,024,756	-	-	(7,832,681)
Tina Hydro Power Limited	Solomon Island	80.00%	1,918,349	1,870,227	-	(1,840,508)
K-Water operation management	Korea	100.00%	2,332,392	1,817,877	8,553,498	14,515

## 2. BASIS OF PREPARATION:

### (1) Basis of presentation

The Group prepared consolidated financial statements in accordance with the Korean government-owned and Quasi-government Accounting Regulations and Standards. Korean International Financial Reporting Standard (“K-IFRS”) were adopted for preparing these consolidated financial statements according to the aforementioned regulations and standards.

#### (i) Government grants (Article 44: Accounting of Government Grants)

Government grants used for the acquisition of certain assets are deducted from the acquisition cost of the acquired assets and such grants are offset against the depreciation expenses of the acquired assets during the useful lives of the assets. Government grants received for consignment management service provided by the Group are recognized as other income.

#### (ii) Contribution to the Employee Welfare Fund (Article 49)

The Group contributes to the employee welfare fund, and contributions are recognized as operating expenses in accordance with Employee Welfare Fund Act.

#### (iii) Presentation of financial statements (Article 2)

Financial statements are prepared and accounts are created and classified in accordance with guidelines set by the Minister of Strategy and Finance.

### (2) New or amended standards issued, but not yet adopted by the Group

New standards and amendments issued but not effective for the period beginning on January 1, 2019, do not exist.

### (3) New or amended standards adopted by the Group

The Group has applied the following amendment to standards and interpretation for the fiscal period beginning on January 1, 2019:

#### 1) Amendments to K-IFRS 1106, Lease

The Group has applied K-IFRS 1116 and changed accounting policy at the date of initial application, January 1, 2019. K-IFRS 1116 Leases replaces K-1017 Leases, Interpretation 2101 Determining whether an Arrangement contains a Lease, Interpretation 2015 Operation Leases-Incentives, and Interpretation 2027 Evaluating the Substance of Transaction Involving the Legal Form of a Lease.

In accordance with the Transition of K-IFRS 1116, the Group has applied the change of accounting policy retrospectively and the cumulative effect of initially applying the standard was recognized as an adjustment to the opening balance of undisposed deficit at the date of initial application, January 1, 2019. Comparative financial statements were not restated. The impact of the application and the practical expedients applied by the Group are described in more details in note 2

#### 2) Amendments to K-IFRS 1109, Financial Instruments

The narrow-scope amendments enable companies to measure certain early-payable financial assets with negative compensation at amortized cost. When a modification of a financial liability measured at amortized cost that does not result in the derecognition, a modification gain or loss shall be recognized in profit or loss. The amendments does not have a significant impact on the consolidated financial statements.

#### 3) Amendments to Korean IFRS 1019, Employee Benefits

The amendments require that the Group shall calculate current service cost and net interest for the remainder of the reporting period after a plan amendment, curtailment or settlement based on updated actuarial assumptions from the date of the change. The amendments also require that a reduction in a surplus must be recognized in profit or loss even if that surplus was not previously recognized because of the impact of the asset ceiling. The amendments does not have a significant impact on the consolidated financial statements.

#### 4) Amendments to Korean IFRS 1028, Investments in Associates and Joint Ventures

The amendments clarify that the Group shall apply Korean IFRS 1109 to financial instruments in an associate or joint venture to which the equity method is not applied. These include long-term interests that, in substance, form part of the entity's net investment in an associate or joint venture. The amendments does not have a significant impact on the consolidated financial statements.

#### 5) Enactment to Interpretation of Korean IFRS 2123, Uncertainty over Income Tax Treatments

The interpretation explains how to recognize and measure deferred and current income tax assets and liabilities where there is uncertainty over a tax treatment, and includes guidance on how to determine whether each uncertain tax treatment is considered separately or together. It also presents examples of circumstances where a judgement or estimate is required to be reassessed. The amendments does not have a significant impact on the consolidated financial statements.

#### (4) Significant accounting policies:

Except as described below, the accounting policies applied by the Group for these consolidated financial statements are the same as those applied by the Group for its consolidated financial statements as of and for the year ended December 31, 2018.

##### 1) Lease

The Group has applied K-IFRS 1106, Lease with a date of initial application of January 1, 2019:

The company shall apply a single method for recognition and measurement of all leases unless their terms are under 12 months and for which underlying assets are of low value. Accordingly the Group shall recognize a right-of-use asset that represents a lessee's right to use an underlying asset and a lease liability that represents responsibility of lease payments

At inception of a contract, the Group assessed whether the contract is, or contains, a lease.

For a contract that were entered before the dated of initial application, The company can apply a practical expedient, not to reassess whether a contract is, or contains, a lease at the date of initial application.

##### (i) When the Group is a Lessor

The Group recognizes lease payments from operating leases as income on either a straight-line basis. The Group adds initial direct costs incurred in obtaining an operating lease to the carrying amount of the underlying asset and recognize those costs as an expense over the lease term on the same basis as the lease income.

##### (ii) When the Group is a Lessee

The Group recognizes a right-of-use asset and a lease liability at the date of initial application for leases previously classified as an operating lease applying K-IFRS 1017

##### (Initial measurement of the lease liability)

The Group has measured that lease liability at the present value of the remaining lease payments, discounted using the lessee's incremental borrowing rate at the date of initial application. Incremental borrowing rate for measuring lease liabilities at January 1, 2019 is 2.05%.

	(Unit: In thousands of Korean won)
	<u>K-IFRS 1116</u>
Operating lease agreements at December 31, 2018	₩7,291,408
Present value discounted using the lessee's incremental borrowing rate at January 1, 2019	7,144,937
Finance lease at December 31, 2018	-
leases for which the underlying asset is of low value	-
Leases for which remaining lease term is under 12 months.	-
Variable lease payments that depend on an index or a rate;	-
Lease liabilities at January 1, 2019	7,144,937

The Group has used hindsight, such as in determining the lease term if the contract contains options to

extend or terminate the lease by applying the practical expedients.

The Group has applied a single discount rate to a portfolio of leases with reasonably similar characteristics (such as leases with a similar remaining lease term for a similar class of underlying asset in a similar economic environment).

(Measurement of a right-of-use asset)

The Group recognizes a right-of-use asset at the date of initial application for leases previously classified as an operating lease applying K-IFRS 1017. The Group measures the use-of-right assets at an amount equal to the lease liability, adjusted by the amount of any prepaid or accrued lease payments relating to that lease recognized in the statements of financial position immediately before the date of initial application.

When the Group measured a right-of-use asset at the date of initial application retrospectively with the cumulative effect of initially applying the Standard, the Group has used the following practical expedients on a lease-by-lease basis.

- To rely on its assessment of whether leases are onerous applying K-IFRS 1037 Provisions, Contingent Liabilities and Contingent Assets immediately before the date of initial application as an alternative to performing an impairment review
- To exclude initial direct costs from the measurement of the right-of-use asset at the date of initial application.

The company is not required to reassess whether a contract is, or contains, a lease to contracts that were previously identified as a lease. The company shall assess whether the contract is, or contains, a lease at inception of a contract after the date of initial application.

(iii) Summary of new accounting policies

New accounting policies at the date of initial application of K-IFRS 1116 are summarized as follow;

- Right –of-use assets

At the commencement date, the Group recognizes a right-of-use asset. The Group measures the right-of-use asset at cost less any accumulated depreciation and accumulated impairment losses and adjusted for any measurement of the lease liability.

The cost of the right-of-use asset shall comprise: (a) the amount of the initial measurement of the lease liability, (b) any initial direct costs incurred by the lessee, (c) any lease payments made at or before the commencement date, less any lease incentives received.

The Group depreciates the right-of-use asset from the commencement date to the earlier of the end of the useful life of the right-of-use asset or the end of the lease term.

The Group performs an impairment review to the right-of-use asset.

- Lease liabilities

At the commencement date, the Group measure the lease liability at the present value of the lease payments that are not paid at that date. the lease payments comprise the following payments (a) fixed payments (including in-substance fixed payments), less any lease incentives receivable; (b) variable lease payments that depend on an index or a rate, (c) amounts expected to be payable by the lessee under residual value guarantees; (d) the exercise price of a purchase option if the lessee is reasonably certain to exercise that option (e) payments of penalties for terminating the lease, if the lease term reflects the lessee exercising an option to terminate the lease.

Variable lease payment that does not depend on an index or a rate is recognized as an expense.

When the Group measures present value of the lease payments, the Group uses the Group's incremental borrowing rate when that the interest rate implicit cannot be readily determined.

After the commencement date, the Group measures the lease liability by increasing the carrying amount to reflect interest on the lease liability and reducing the carrying amount to reflect the lease payments made.

The Group remeasures the lease liability to reflect any reassessment or lease modifications, or to reflect revised in-substance fixed lease payments, or if there is a change in the lease term, or there is a change in the assessment of an option to purchase the underlying asset.

- Short-term leases and leases of low-value assets

The company applies recognition exemption to short-term leases of buildings and vehicles. The company also applies recognition exemption to leases of low value asset for office equipment.

Short-term leases or leases for which the underlying asset is of low value, the Group recognize the lease payments associated with those leases as an expense on a straight-line basis over the lease term.

Book values of right-of-use assets and lease liabilities and change of lease payment during the reporting period are described in note 21.

As at January 1, 2019, the date of initial application, the effects on the consolidated financial statements of the application of K-IFRS 1116 are as follows.

	(Unit: In thousands of Korean won)		
	December 31, 2018 (before adjustments)	K-IFRS 1116 Adjustments	January 1, 2019 (after adjustments)
CURRENT ASSETS	₩8,208,278,073	₩-	₩8,208,278,073
NON-CURRENT ASSETS	13,588,479,851	7,144,937	13,595,624,788
Property, plant and equipment	1,713,823,552	7,144,937	1,720,968,489
- right-of-use assets	-	7,144,937	7,144,937
<b>TOTAL ASSETS</b>	<b>₩21,796,757,924</b>	<b>₩7,144,937</b>	<b>₩21,803,902,861</b>
CURRENT LIABILITIES	₩2,901,471,137	₩-	₩2,901,471,137
NON-CURRENT LIABILITIES	11,108,158,747	7,144,937	11,115,303,684
Long-term trade and other payables	-	7,144,937	7,144,937
- Lease liabilities	-	7,144,937	7,144,937
<b>TOTAL LIABILITIES</b>	<b>14,009,629,884</b>	<b>7,144,937</b>	<b>14,016,774,821</b>
TOTAL EQUITY	7,787,128,040	-	7,787,128,040
<b>TOTAL EQUITY AND LIABILITIES</b>	<b>₩21,796,757,924</b>	<b>₩7,144,937</b>	<b>₩21,803,902,861</b>

### **3. CRITICAL ACCOUNTING ESTIMATES AND ASSUMPTIONS:**

The Group makes estimates and assumptions concerning the future. The estimates and assumptions are continuously assessed, considering historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

The resulting accounting estimates will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are addressed below.

#### **(1) Income taxes**

The Group recognizes assets and liabilities for anticipated tax audit issues based on the best estimates of whether additional taxes will be due. Where the final tax outcome of these matters is different from the amounts that were initially recorded, such differences will impact the current and deferred income tax assets and liabilities in the period in which such determination is made.

#### **(2) Fair value of financial instruments**

The fair value of financial instruments that are not traded in an active market is determined by using valuation techniques. The Group uses its judgement to select variety of methods and make assumptions that are mainly based on market condition existing at the end of the reporting period.

#### **(3) Provisions**

The company makes payment of incentives every year based on business performance according to management evaluation conducted by Ministry of Economy and Finance. The payment of incentives are recorded as provisions.

#### **(4) Net defined benefit liabilities**

The present value of the defined benefit liability depends on various factors that are determined on an actuarial basis. The assumptions used in determining the net cost (income) for pensions include the discount rate, which is the interest rate that is used to determine the present value of estimated future cash outflows expected to be required to settle the defined benefit liability. In determining the appropriate discount rate, the Group considers the interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating the terms of the related pension liability. Other key assumptions for defined liability are based on current market conditions.

#### 4. SEGMENT INFORMATION:

The Group is not required to disclose operating segment information. The Group instead has elected to present certain financial information for its six business units, as described below.

Business segments	Main goods and services
Multiregional waterworks business	Operational management of multiregional waterworks
Multipurpose dams operation business	Operational management of multipurpose dams
Site development business	Sales and rent of land
Construction business	Construction of tangible assets (waterworks, dams, etc.)
Local waterworks and sewage treatment business	Operation and management of local waterworks and sewage treatment
Other businesses	Foreign business, aggregate business, consignment business, Kyung-in canal operation business, Four River Restoration operation business and renewable energy business

(1) The following table provides information of operations for each operating segment for the years ended December 31, 2019 and 2018:

(i) December 31, 2019

	(Unit: In thousands of Korean won)				
	Total revenue	Interbusiness unit revenue	External revenue	Operating profit	Depreciation and amortization
Multiregional waterworks business	₩1,155,253,619	₩-	₩1,155,253,619	₩123,407,963	₩396,002,575
Multipurpose dams operation business	515,734,829	2,829,500	512,905,329	98,736,461	131,265,964
Site development business	265,562,422	-	265,562,422	124,746,069	1,019,421
Construction business	379,374,378	1,299,381	378,074,997	(4,714,719)	42,908
Local waterworks and sewage treatment business	173,350,568	-	173,350,568	(96,079)	4,232,235
Other businesses	527,405,432	40,862,611	486,542,821	(13,330,728)	59,348,841
Total	<u>₩3,016,681,248</u>	<u>₩44,991,492</u>	<u>₩2,971,689,756</u>	<u>₩328,748,967</u>	<u>₩591,911,944</u>

(ii) December 31, 2018

(Unit: In thousands of Korean won)

	Total revenue	Interbusiness unit revenue	External revenue	Operating profit	Depreciation and amortization
Multiregional waterworks business	₩1,142,324,992	₩-	₩1,142,324,992	₩135,094,423	₩437,103,676
Multipurpose dams operation business	544,110,586	2,578,674	541,531,912	158,221,886	126,921,192
Site development business	572,863,589	-	572,863,589	220,240,443	1,846,884
Construction business	570,060,384	-	570,060,384	(9,259,823)	130,615
Local waterworks and sewage treatment business	184,914,316	-	184,914,316	(2,348,247)	3,383,412
Other businesses	396,830,773	16,957,766	379,873,007	(25,926,757)	72,923,421
Total	₩3,411,104,640	₩19,536,440	₩3,391,568,200	₩476,021,925	₩642,309,200

The Group does not provide information of asset and liability for each operating segment and regional financial information because most of the businesses are done domestically.

## **5. CASH AND CASH EQUIVALENTS:**

Details of cash and cash equivalents as of December 31, 2019 AND 2018, are as follows:

(Unit: In thousands of Korean won)

	December 31, 2019	December 31, 2018
Cash on hand	₩-	₩800
Demand deposits	71,165,675	48,708,511
Cash equivalents classified as short-term investment assets	76,658,477	215,813,605
	₩147,824,152	₩264,522,916

## **6. RESTRICTED FINANCIAL INSTRUMENTS:**

Details of cash and cash equivalents that are restricted in use as of December 31, 2019 and 2018, are as follows:

(Unit: In thousands of Korean won)

Description	December 31, 2019	December 31, 2018
Restricted in use for designated purpose (*1)	₩6,787,797	₩15,765,344

(\*1) Restricted cash and cash equivalents consist of advance payments received from customers in light of local waterworks and restricted in use only for designated purposes

## 7. PROFIT-LOSS FAIR VALUE MEASUREMENT FINANCIAL ASSETS:

### A. Financial assets at fair value through profit or loss (FVPL)

(1) Details of financial assets measured at fair value through profit or loss as of December 31, 2019 and December 31, 2018, are as follows:

	(Unit: In thousands of Korean won)			
	December 31, 2019		December 31, 2018	
	Current	Non-current	Current	Non-current
Financial assets at FVPL:				
Beneficial securities(*1)	₩-	₩7,292,929	₩-	₩2,387,228

(\*1) The financial assets are categorized as available-for-sale financial assets as of December 31, 2018.

(2) Profit or loss in relation to the financial assets at fair value through profit or loss for the years ended December 31, 2019, are as follows.

	2019	2018
Profit (loss) in relation to Beneficial securities	(₩21,489)	(₩24,772)

### B. Derivative instruments

(1) Details of derivative instruments as of December 31, 2019 and December 31, 2018, are as follows:

	(Unit: In thousands of Korean won)			
	December 31, 2019		December 31, 2018	
	Current	Non-current	Current	Non-current
Financial derivative assets:				
Currency swap	₩-	₩53,072,389	₩-	₩14,439,857
Interest rate swap (“IRS”)	1,269,071	26,385,215	-	50,721,459
	₩1,269,071	₩79,457,604	-	₩65,161,316
Financial derivative liabilities:				
Currency swap	₩-	₩5,615,863	₩-	₩27,700,721
IRS	1,447,379	15,200,731	-	14,783,287
	₩1,447,379	₩20,816,594	₩-	₩42,484,008

(2) Purpose

The Group entered into currency swap contracts to hedge cash flow risk associated with change in foreign exchange rate and interest rate of foreign currency debentures. Moreover, the Group entered into IRS contracts to hedge cash flow risk associated with change in interest rate of Korean won-denominated debentures.

(3) Details of risks and the Group's strategy

Details of risks: The Group is exposed to risks of fluctuations in exchange rates of Korean won against foreign currencies and interest rate appreciation on the repayment of foreign currency-denominated debentures. Also, the Group is exposed to cash flow risk associated with change in interest rate of Korean won-denominated debentures.

Strategy: The Group entered into cross-currency IRS contracts to fix the principal and interest amount in Korean won and IRS contracts to fix the interest rate of Korean won-denominated debentures.

(4) Details of cross-currency swaps (cash flow hedge) as of December 31, 2019 are as follows:

(Unit: In thousands of Korean won, JPY, USD)

Counterparty	Contract period	Notional amount		Interest rate		Contract exchange rate
		Payment	Receipt	Payment (%)	Receipt (%)	
Korea Development Bank	16.05.20-31.05.20	₩117,250,000	USD 100,000	1.84	2.77	1,172.50
KEB Hana Bank	17.05.23-22.05.23	167,850,000	USD 150,000	2.05	2.75	1,119.00
Korea Development Bank	17.05.23-22.05.23	111,900,000	USD 100,000	2.06	2.75	1,119.00
KB Bank	17.05.23-22.05.23	111,900,000	USD 100,000	2.05	2.75	1,119.00
KEB Hana Bank	18.05.15-23.05.15	323,700,000	USD 300,000	2.15	3.88	1,079.00
NOMURA	18.09.20-23.09.20	225,442,000	CHF 200,000	1.97	0.15	1,127.21
Societe Generale	19.08.02-22.08.02	225,442,000	USD 100,000	1.22	1.56	1,181.90

(5) Details of IRSs (cash flow hedge) as of December 31, 2019 are as follows:

(Unit: In thousands of Korean won)

Counterparty	Contract period	Notional amount	Interest rate	
			Payment (%)	Receipt (%)
Standard Chartered	10.07.16-20.07.16	₩50,000,000	4.97	Pegged with IRS Index
Standard Chartered	10.08.09-20.08.09	40,000,000	4.86	Pegged with IRS Index
BNP-PARIBAS	10.08.09-20.08.09	30,000,000	4.86	Pegged with IRS Index
BNP-PARIBAS	10.08.09-20.08.09	30,000,000	4.86	Pegged with IRS Index
BNP-PARIBAS	10.11.23-20.11.23	20,000,000	4.56	Pegged with BPSTAR(*1) Index
NOMURA	16.01.26-36.01.26	30,000,000	2.04	2.91
Societe Generale	17.03.09-22.06.09	30,000,000	2.11	CD+0.24
NOMURA	17.11.09-37.11.09	50,000,000	2.56	2.86
KEB Hana Bank	18.03.16-23.03.16	200,000,000	2.64	CD+0.33
KEB Hana Bank	18.06.22-28.06.22	100,000,000	2.57	2.94
KEB Hana Bank	18.06.22-43.06.22	100,000,000	2.57	2.94
KDB	18.09.19-43.09.19	60,000,000	2.29	2.57
BNP-PARIBAS	18.12.18-43.12.18	30,000,000	1.99	2.37
KEB Hana Bank	19.09.16-24.09.16	120,000,000	1.41	CD+0.15

(\*1) BNP Paribas Index ("BPSTAR")

(\*2) Certificate of Deposit ("CD")

(6) Valuation gains (losses) and transaction gains (losses) of derivative instruments for 2019 and 2018, are as follows:

(Unit: In thousands of Korean won)						
Valuation gain (loss)		Transaction gain (loss)		Changes in other comprehensive incomes		
2019	2018	2019	2018	2019	2018	
Cash flow hedge	₩39,225,000	₩34,547,000	₩-	₩6,084,000	(₩2,607,221)	(₩3,733,384)

Gain on valuation of derivatives in accumulated other comprehensive income at the end of the period is recognized with tax effect subtracted directly from equity.

## 8. TRADE AND OTHER RECEIVABLES:

(1) Details of trade and other receivables as of December 31, 2019 and 2018, are as follows:

① December 31, 2019

(Unit: In thousands of Korean won)				
	Receivables	Bad debt allowances	Present value discount	Book value
Current assets				
Trade receivables	₩248,460,184	(₩231,126)	₩-	₩248,229,058
Unclaimed construction	320,568,040	-	-	320,568,040
Other receivables	159,698,432	(8,377,954)	-	151,320,478
Subtotal	728,726,656	(8,609,080)	-	720,117,576
Non-current assets				
Trade receivables	523,843,976	-	(2,314,496)	521,529,480
Other receivables	197,630,497	-	-	197,630,497
Subtotal	721,474,473	-	(2,314,496)	719,159,977
Total	₩1,450,201,129	(₩8,609,080)	(₩2,314,496)	₩1,439,277,553

② December 31, 2018

(Unit: In thousands of Korean won)				
	Receivables	Bad debt allowances	Present value discount	Book value
Current assets				
Trade receivables	₩242,632,313	(₩331,760)	₩-	₩242,300,553
Unclaimed construction	366,046,748	-	-	366,046,748
Other receivables	165,912,209	(7,546,834)	-	158,365,375
Subtotal	774,591,270	(7,878,594)	-	766,712,676
Non-current assets				
Trade receivables	455,228,150	-	(7,665)	455,220,485
Other receivables	184,569,186	-	-	184,569,186
Subtotal	639,797,336	-	(7,665)	639,789,671
Total	₩1,414,388,606	(₩7,878,594)	(₩7,665)	₩1,406,502,347

(2) Details of other receivables as of December 31, 2019 and 2018, are as follows:

(Unit: In thousands of Korean won)

	December 31, 2019			December 31, 2018		
	Receivables	Bad debt allowances	Book value	Receivables	Bad debt allowances	Book value
Current assets						
Other receivables	₩124,133,228	(₩8,377,954)	₩115,755,274	₩119,082,785	(₩7,546,834)	₩111,535,951
Accrual revenue	21,362,672	-	21,362,672	46,572,627	-	46,572,627
Deposits	14,202,533	-	14,202,533	256,796	-	256,796
Subtotal	159,698,433	(8,377,954)	151,320,479	165,912,208	(7,546,834)	158,365,374
Non-current assets						
Deposits	197,630,497	-	197,630,497	184,569,187	-	184,569,187
	₩357,328,930	(₩8,377,954)	₩348,950,976	₩350,481,395	(₩7,546,834)	₩342,934,561

(3) Credit risk and allowances

The trade and other receivables above are categorized as amortized cost measurement financial assets. Trade receivables do not contain interest factor and ordinary collection period is 30 days.

① Details of aging analysis on trade receivables as of December 31, 2019 and 2018 are as follows:

(Unit: In thousands of Korean won)

	December 31, 2019	December 31, 2018
Normal receivables	₩747,775,011	₩677,904,078
Receivables overdue but not impaired	11,689,439	16,663,237
- More than 12 months	1,705,851	12,842,781
- 12 months ~ 24 months	4,861,577	2,333,888
- 6 months ~ 12 months	2,982,385	1,431,099
- 3 months ~ 6 months	1,379,764	14,587
- 1 months ~ 3 months	759,862	40,882
Impaired receivables	12,839,710	3,293,148
- More than 24 months	10,686,356	275,801
- 12 months ~ 24 months	436,495	49,143
- 6 months ~ 12 months	1,532,675	1,973,255
- 3 months ~ 6 months	96,376	943,391
- 1 months ~ 3 months	87,808	51,558
Subtotal	772,304,160	697,860,463
Less: bad debt allowance	(231,126)	(331,760)
Less: present value discount	(2,314,496)	(7,665)
Total	₩769,758,538	₩697,521,038

② Details of aging analysis on other receivables as of December 31, 2019 and 2018 are as follows:

(Unit: In thousands of Korean won)

	December 31, 2019	December 31, 2018
Normal receivables	₩654,340,151	₩658,341,279
Receivables overdue but not impaired	12,412,871	46,382,255
- More than 12 months	-	1,520,786
- 12 months ~ 24 months	40,917	18,867,478
- 6 months ~ 12 months	450,019	10,894,139
- 3 months ~ 6 months	11,921,935	4,839,656
- 1 months ~ 3 months	-	10,260,196
Impaired receivables	11,143,948	11,804,608
- More than 24 months	7,617,464	6,657,388
- 12 months ~ 24 months	2,045,012	2,011,051
- 6 months ~12 months	1,030,342	2,538,211
- 3 months ~6 months	398,481	439,037
- 1 months ~3 months	52,649	158,921
Subtotal	677,896,970	716,528,142
Subtraction: bad debt allowance	(8,377,955)	(7,546,834)
Total	₩669,519,015	₩708,981,308

(\*) Other receivables contain contract assets (unclaimed construction).

(4) Details of changes in bad debt allowance of trade and other receivables for the years ended December 31, 2019 and 2018 are as follows:

(Unit: In thousands of Korean won)

	2019		2018	
	Trade receivables	Other receivables	Trade receivables	Other receivables
Beginning balance	₩331,760	₩7,546,834	₩195,234	₩6,995,408
IFRS Adjustment (beginning)	-	-	136,826	(53,816)
Bad debt expenses	30,228	3,102,939	50,866	1,047,149
Write-off of trade and other receivables	(130,862)	(2,271,818)	(51,165)	(441,907)
Ending balance	₩231,126	₩8,377,955	₩331,761	₩7,546,834

**9. FINANCIAL ASSETS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME (FVOCI)**

(1) Details of changes in financial assets measured at fair value through other comprehensive income (unlisted stocks) for the years ended December 31, 2019 and 2018, are as follows:

① 2019

	(Unit: In thousands of Korean won)				
	Beginning balance	Acquisitions	Disposals	Valuation	Ending balance
Unlisted equity securities	₩26,480,662	₩-	(₩103,196)	(₩83,211)	₩26,294,255

② 2018

	(Unit: In thousands of Korean won)				
	Beginning balance	Acquisitions	Disposals	Valuation	Ending balance
Unlisted equity securities	₩5,751,805	₩20,772,301	₩-	(₩43,443)	₩26,480,662

(2) Details of unlisted stocks as of December 31, 2019 and 2018 are as follows:

	(Unit: In thousands of Korean won)					
	Ownership	Stocks	Acquisition cost	Fair value	Dec 31, 2019 Book value	Dec 31, 2018 Book value
Korea construction management corporation	18.90%	178,200	₩4,000,000	₩4,000,000	₩4,000,000	₩4,000,000
Korea foreign infra/urban development resources corporation	11.00%	4,154,400	20,772,301	20,644,713	20,644,713	20,727,924
P-waters, Limited	2.00%	36,144	180,720	180,720	180,720	180,720
Luzon clean water	2.80%	67,500,000	1,468,822	1,468,822	1,468,822	1,468,822
Korea Specialty Contractor Financial Corporative						103,196
<b>Total</b>			<b>₩26,421,843</b>	<b>₩26,294,255</b>	<b>₩26,294,255</b>	<b>₩26,480,662</b>

## 10. SHORT-TERM FINANCIAL INSTRUMENTS:

Details of short-term financial instruments as of December 31, 2019 and 2018 are as follows:

(Unit: In thousands of Korean won)

	December 31, 2019		December 31, 2018	
	Current		Current	
Specific money trust		₩-		₩134,486,394

## 11. OTHER FINANCIAL ASSETS:

Other financial assets as of December 31, 2019 and 2018 are as follows:

(Unit: In thousands of Korean won)

	December 31, 2019		December 31, 2018	
	Current	Non-current	Current	Non-current
Employee loan	₩-	₩7,692,846	₩-	₩8,609,583
Other loan	1,760,788	7,298,617	1,700,412	7,627,744
	₩1,760,788	₩14,991,463	₩1,700,412	₩16,237,327

## 12. INVENTORIES:

Details of inventories as of December 31, 2019 and 2018 are as follows:

(Unit: In thousands of Korean won)

	December 31, 2019		December 31, 2018	
	Acquisition cost	Book value	Acquisition cost	Book value
Raw materials	₩3,812,143	₩3,812,144	₩3,357,834	₩3,357,834
Product	7,440,921,613	7,440,921,613	6,921,120,487	6,921,120,487
Store	8,028,512	8,028,512	8,167,065	8,167,065
Other stock	134,439	134,439	123,649	123,649
	₩7,452,896,707	₩7,452,896,708	₩6,932,769,035	₩6,932,769,035

## 13. NON-FINANCIAL ASSETS:

Details of non-financial assets as of December 31, 2019 and 2018 are as follows:

(Unit: In thousands of Korean won)

	December 31, 2019		December 31, 2018	
	Current	Non-current	Current	Non-current
Prepayment	₩156,470,875	₩-	₩83,659,795	₩-
Accrual assets	20,155,502	-	24,370,294	-
Others	-	3,849,346	-	3,763,960
	₩176,626,377	₩3,849,346	₩108,030,089	₩3,763,960

#### 14. INVESTMENT IN ASSOCIATES:

(1) Details of associates as of December 31, 2019 and 2018, are as follows:

(Unit: In thousands of Korean won)

Companies	Principal activity	Country of corporation	Ownership (%)	Acquisition cost	Book value	
					Dec. 31, 2019	Dec. 31, 2018
Associates:						
KWPP Holdings Co.	Angat Dam hydropower project in Philippines	Philippines	38.50%	₩268	₩9,483	₩9,434
Angat Hydropower Co. (*1)	Angat Dam hydropower project in Philippines	Philippines	40.00%	100,845,106	65,781,624	67,283,322
Water Genesis	K-Water R&D company	Korea	20.00%	10,000	10,000	-
Pump Care	K-Water R&D company	Korea	20.00%	10,380	10,380	-
Sejong Tech	K-Water R&D company	Korea	20.00%	11,000	11,000	-
Surjitech	K-Water R&D company	Korea	20.00%	11,010	11,010	-
				₩100,887,764	₩65,833,497	₩67,292,756

(\*1) After the Group acquired share 99.99% (₩22,302,766 thousand) of Angat Hydropower Co. in 2014, it was classified into a subsidiary but after its share 59.99% (₩45,236,869 thousand) was disposed (gain on disposal of investment in subsidiary of ₩31,855,209 thousand) in 2014, it was classified into an associate.

(2) Changes in investment in associates for the years ended December 31, 2019 and 2018, are as follows:

##### ① 2019

(Unit: In thousands of Korean won)

	Net book value at Jan 1, 2019	Acquisitions	Equity gain (loss) in associates, net	Unrealized loss on	
				valuation of equity method investments	Net book value at Dec 31, 2019
KWPP Holdings Co.	₩9,434	₩-	(₩699)	₩748	₩9,483
Angat Hydropower Co.	67,283,322	-	(6,196,743)	4,695,045	65,781,624
Water Genesis	-	10,000	-	-	10,000
Pump Care	-	10,380	-	-	10,380
Sejong Tech	-	11,000	-	-	11,000
Surjitech	-	11,010	-	-	11,010
				₩4,695,793	₩65,833,497
				₩67,292,756	₩42,390
				(₩6,197,442)	

##### ② 2018

(Unit: In thousands of Korean won)

	Net book value at Jan 1, 2019	Acquisitions	Equity gain (loss) in associates, net	Unrealized loss on	
				valuation of equity method investments	Net book value at Dec 31, 2019
KWPP Holdings Co.	₩9,465	₩-	₩167	(₩198)	₩9,434
Angat Hydropower Co.	75,016,114	-	(7,140,781)	(592,011)	67,283,322
				(₩592,209)	₩67,292,756
				₩75,025,579	₩-
				(₩7,140,614)	

(3) Details of financial information in associates as of December 31, 2019 and 2018, are as follows:

① December 31, 2019

	(Unit: In thousands of Korean won)			
	Assets	Liabilities	Revenue	Net profit(loss)
KWPP Holdings Co.	₩494,167	₩469,120	₩31,331	(₩1,342)
Angat Hydropower Co.	459,746,547	295,131,160	36,180,912	(15,384,323)
Water Genesis	50,000	-	-	-
Pump Care	51,900	-	-	-
Sejong Tech	55,000	-	-	-
Surjitech	55,050	-	-	-

② December 31, 2018

	(Unit: In thousands of Korean won)			
	Assets	Liabilities	Revenue	Net profit(loss)
KWPP Holdings Co.	₩593,181	₩568,543	₩29,708	₩433
Angat Hydropower Co.	445,920,248	277,546,699	32,907,342	(17,869,489)

## 15. PROPERTY, PLANT AND EQUIPMENT:

(1) Details of property, plant and equipment as of December 31, 2019 and 2018, are as follows:

### ① December 31, 2019

(Unit: In thousands of Korean won)

	Acquisition cost	Government grant	Accumulated depreciation	Net book value
Land	₩249,457,910	₩-	₩-	₩249,457,910
Buildings	558,017,671	(5,010,476)	(229,099,515)	323,907,680
Structures	468,595,160	-	(157,017,285)	311,577,875
Machinery and equipment	1,078,517,888	-	(618,768,662)	459,749,226
Ships	14,175,981	-	(10,072,842)	4,103,139
Vehicles	16,324,737	-	(11,204,762)	5,119,975
Furniture and fixtures	87,905,957	-	(57,342,544)	30,563,413
Tools	89,826,414	-	(72,200,431)	17,625,983
Construction in progress	339,003,989	-	-	339,003,989
Right-of-use assets	8,716,155	-	(3,285,076)	5,431,079
	₩2,910,541,862	(₩5,010,476)	(₩1,158,991,117)	₩1,746,540,269

### ② December 31, 2018

(Unit: In thousands of Korean won)

	Acquisition cost	Government grant	Accumulated depreciation	Net book value
Land	₩249,805,084	₩-	₩-	₩249,805,084
Buildings	548,428,547	(5,315,130)	(208,664,390)	334,449,027
Structures	466,941,233	-	(141,127,183)	325,814,050
Machinery and equipment	1,071,274,804	-	(574,236,414)	497,038,390
Ships	13,994,046	-	(10,186,062)	3,807,984
Vehicles	15,659,612	-	(9,851,352)	5,808,260
Furniture and fixtures	79,467,367	-	(53,562,401)	25,904,966
Tools	84,312,596	-	(70,330,277)	13,982,319
Construction in progress	257,213,472	-	-	257,213,472
	₩2,787,096,761	(₩5,315,130)	(₩1,067,958,079)	₩1,713,823,552

(2) Changes in property, plant and equipment for the years ended December 31, 2019 and 2018, are as follows:

① December 31, 2019

(Unit: In thousands of Korean won)

	Net book value at Jan 1, 2019	Acquisition	Disposal	Depreciation	Transfer	Others(*1)	Net book value at Dec 31, 2018
Land	₩249,805,084	₩-	(₩412,805)	₩-	₩-	₩65,631	₩249,457,910
Buildings	339,764,157	4,957	(398,720)	(20,875,991)	10,228,270	195,483	328,918,156
Government grants	(5,315,130)	-	-	304,654	-	-	(5,010,476)
Structures	325,814,050	-	(243,723)	(16,039,488)	1,698,109	348,927	311,577,875
Machinery and equipment	497,038,390	-	(1,012,167)	(46,582,747)	7,836,595	2,469,155	459,749,226
Ships	3,807,984	-	(13,048)	(748,825)	1,057,028	-	4,103,139
Vehicles	5,808,260	1,593,173	(25)	(2,154,489)	-	(126,944)	5,119,975
Furniture and fixtures	25,904,966	13,260,867	(6,931)	(8,596,180)	-	691	30,563,413
Tools	13,982,319	234,562	(190)	(4,681,768)	8,084,470	6,590	17,625,983
Construction in progress	257,213,472	109,242,914	-	-	(28,904,472)	1,452,075	339,003,989
Right-of-use assets	-	-	-	(3,789,262)	-	9,220,341	5,431,079
	<u>₩1,713,823,552</u>	<u>₩124,336,473</u>	<u>(₩2,087,609)</u>	<u>(₩103,164,096)</u>	<u>₩-</u>	<u>₩13,631,949</u>	<u>₩1,746,540,269</u>

(\*1) Others include ₩3,013,400 thousand transferred from intangible assets, ₩105,295 thousand transferred to construction in progress and ₩7,144,937 thousand from the effect of accounting change.

② December 31, 2018

(Unit: In thousands of Korean won)

	Net book value at Jan 1, 2018	Acquisition	Disposal	Depreciation	Transfer	Others(*1)	Net book value at Dec 31, 2018
Land	₩184,398,914	₩11,157,615	(₩1,907)	₩-	₩54,170,630	₩79,832	₩249,805,084
Buildings	297,907,109	34,359	(306,383)	(17,340,124)	59,507,809	(38,613)	339,764,157
Government grants	(5,786,451)	-	-	471,321	-	-	(5,315,130)
Structures	287,348,901	-	(1)	(14,719,969)	53,190,718	(5,599)	325,814,050
Machinery and equipment	513,121,750	-	(1,012,840)	(42,690,317)	27,595,151	24,646	497,038,390
Ships	3,991,983	-	(906)	(755,833)	572,740	-	3,807,984
Vehicles	6,097,926	1,646,305	(19,981)	(1,924,849)	-	8,859	5,808,260
Furniture and fixtures	20,691,330	13,085,829	(4,200)	(7,863,902)	8,243	(12,334)	25,904,966
Tools	12,217,612	-	(1,159)	(4,428,678)	6,181,297	13,247	13,982,319
Construction in progress	272,200,795	200,864,154	(15,053,764)	-	(201,226,588)	428,875	257,213,472
	<u>₩1,592,189,869</u>	<u>₩226,788,262</u>	<u>(₩16,401,141)</u>	<u>(₩89,252,351)</u>	<u>₩-</u>	<u>₩498,913</u>	<u>₩1,713,823,552</u>

(\*1) Others include ₩172,336 thousand transferred from intangible assets.

## 16. INTANGIBLE ASSETS:

(1) Details of intangible assets other than goodwill as of December 31, 2019 and 2018, are as follows:

① December 31, 2019

	Acquisition cost	Contributions toward construction	Government grant	(Unit: In thousands of Korean won) Accumulated amortization and impairment	Net book value
Software	₩157,423,450	₩-	₩-	(₩99,219,636)	₩58,203,814
Industrial proprietary rights	449,094	-	-	(403,238)	45,856
Intangible assets under development	3,746,545,788	-	(1,263,455)	(1,168,853,890)	2,576,428,443
Concession assets usage rights	16,199,094,323	(3,917,943)	(15,032,493)	(8,804,280,880)	7,375,863,007
Other intangible assets	6,279,425,681	-	-	(5,269,831,423)	1,009,594,258
	<u>₩26,382,938,336</u>	<u>(₩3,917,943)</u>	<u>(₩16,295,948)</u>	<u>(₩15,342,589,067)</u>	<u>₩11,020,135,378</u>

② December 31, 2018

	Acquisition cost	Contributions toward construction	Government grant	(Unit: In thousands of Korean won) Accumulated amortization and impairment	Net book value
Software	₩148,091,556	₩-	₩-	(₩96,382,671)	₩51,708,885
Industrial proprietary rights	449,094	-	-	(382,724)	66,370
Intangible assets under development	3,346,072,736	-	(6,334,196)	(1,168,853,889)	2,170,884,651
Concession assets usage rights	16,456,895,445	(4,403,786)	(16,376,591)	(8,648,892,128)	7,787,222,940
Other intangible assets	6,278,677,575	-	-	(5,269,831,422)	1,008,846,153
	<u>₩26,230,186,406</u>	<u>(₩4,403,786)</u>	<u>(₩22,710,787)</u>	<u>(₩15,184,342,834)</u>	<u>₩11,018,728,999</u>

(2) Changes in intangible assets other than goodwill for 2019 and 2018, are as follows:

① December 31, 2019

(Unit: In thousands of Korean won)

	Net book value at January 1, 2019	Additions	Disposal	Amortizations
Software	₩51,708,885	₩12,107,185	₩-	(₩5,720,698)
Industrial proprietary rights	66,370	-	-	(20,514)
Intangible assets under development	2,177,218,847	545,173,561	-	-
(Government grants)	(6,334,196)	(1,216,260)	-	-
Concession assets usage rights	7,803,599,531	-	(70,145,702)	(484,350,733)
(Government grants)	(16,376,591)	-	-	1,344,098
Other intangible assets	1,008,846,153	857,335	-	-
	<u>₩11,018,728,999</u>	<u>₩556,921,821</u>	<u>(₩70,145,702)</u>	<u>(₩488,747,847)</u>

  

	Impairment loss	Transfer	Others (*1)	Net book value at December 31, 2019
Software	₩-	₩109,230	(₩788)	₩58,203,814
Industrial proprietary rights	-	-	-	45,856
Intangible assets under development	-	(141,687,109)	(3,013,400)	2,577,691,899
(Government grants)	-	-	6,287,000	(1,263,456)
Concession assets usage rights	-	141,687,109	105,295	7,390,895,500
(Government grants)	-	-	-	(15,032,493)
Other intangible assets	-	(109,230)	-	1,009,594,258
	<u>₩-</u>	<u>₩-</u>	<u>₩3,378,107</u>	<u>₩11,020,135,378</u>

(\*1) Others include ₩3,013,400 thousand transferred to property, plant and equipment from intangible assets in development and ₩105,295 thousand transferred to intangible assets from construction in progress.

② December 31, 2018

(Unit: In thousands of Korean won)

	Net book value at January 1, 2018	Additions	Disposal	Amortizations
Software	₩38,893,855	₩16,006,581	(₩15)	(₩4,722,522)
Industrial proprietary rights	89,294	-	-	(22,924)
Intangible assets under development	1,812,064,154	668,227,387	-	-
(Government grants)	(6,334,196)	-	-	-
Concession assets usage rights	8,571,374,379	529,998,495	(581,660,283)	(549,649,619)
(Government grants)	(41,035,237)	-	-	1,344,098
Other intangible assets	1,007,574,115	1,578,784	(304,813)	(5,881)
	<u>₩11,382,626,364</u>	<u>₩1,215,811,247</u>	<u>(₩581,965,111)</u>	<u>(₩553,056,848)</u>

  

	Impairment loss	Transfer	Others (*1)	Net book value at December 31, 2018
Software	₩-	₩-	₩1,530,986	₩51,708,885
Industrial proprietary rights	-	-	-	66,370
Intangible assets under development	-	(259,245,569)	(43,827,125)	2,177,218,847
(Government grants)	-	-	-	(6,334,196)
Concession assets usage rights	-	259,245,569	(425,709,010)	7,803,599,531
(Government grants)	-	-	23,314,548	(16,376,591)
Other intangible assets	-	-	3,948	1,008,846,153
	<u>₩-</u>	<u>₩-</u>	<u>(₩444,686,653)</u>	<u>₩11,018,728,999</u>

(\*1) Others include ₩172,337 thousand transferred to property, plant and equipment from intangible assets in development.

(3) Details of individually significant intangible assets as of December 31, 2019 and 2018 are as follows:

① December 31, 2019

		(Unit: In thousands of Korean won)
Description		Amount
Software	Development expense, other intangible assets and construction in progress for data processing	₩58,203,814
Industrial proprietary rights	Copyright, patents and industrial proprietary rights	45,856
Intangible assets under development	Water facilities under construction	2,576,428,443
Concession assets usage rights	Management right of water facilities in capital area Usage rights of water dams, usage rights of hydrogen dams, concession asset usage rights and management right of aggregate complex	6,100,496,436 1,275,366,571
Other intangible assets	Waterfront business rights Membership	1,000,000,000 9,594,258
		<u>₩11,020,135,378</u>

② December 31, 2018

		(Unit: In thousands of Korean won)
Description		Amount
Software	Development expense, other intangible assets and construction in progress for data processing	₩51,708,885
Industrial proprietary rights	Copyright, patents and industrial proprietary rights	66,370
Intangible assets under development	Water facilities under construction	2,170,884,651
Concession assets usage rights	Management right of water facilities in capital area Usage rights of water dams, usage rights of hydrogen dams, concession asset usage rights and management right of aggregate complex	6,433,543,798 1,353,679,142
Other intangible assets	Waterfront business rights Membership	1,000,000,000 8,846,153
		<u>₩11,018,728,999</u>

## **17. CONTRACT ASSET AND CONTRACT LIABILITY:**

The Group applied Accounting Standard No. 1115 'Revenue occurring in contract with customers' from the beginning of 2018.

(1) Contract assets and contract liabilities recognized by the Group as of December 31, 2019 and 2018, are as follows:

	(Unit: In thousands of Korean won)	
	December 31, 2019	December 31, 2018
Contract asset – Unclaimed construction	₩320,568,040	₩366,046,748
Contract liabilities – extra-invoiced construction	22,364,405	60,290,392

## **18. TRADE AND OTHER PAYABLES:**

Details of trade and other payables as of December 31, 2019 and 2018 are as follows:

Details of trade and other payables as of December 31, 2019 and 2018 are as follows

	(Unit: In thousands of Korean won)			
	December 31, 2019		December 31, 2018	
	Current	Non-Current	Current	Non-Current
Trade payables	₩17,477,323	₩-	₩16,911,777	₩-
Other payables	269,272,395	-	199,631,508	-
Accrued expenses	106,259,090	-	137,713,592	-
Dividend payables	312,406	-	312,406	-
Lease liabilities	3,006,101	2,482,151	-	-
Others	38,080,777	-	3,468,992	-
	₩434,408,091	₩2,482,151	₩358,038,275	₩-

## 19. BORROWINGS AND DEBENTURES:

(1) Details of borrowings and debentures as of December 31, 2019 and 2018, are as follows:

	(Unit: In thousands of Korean won)	
	December 31, 2019	December 31, 2018
Current:		
Short-term borrowings	₩-	₩42,805,666
Current portion of long-term borrowings	39,491,452	46,446,021
Current portion of debentures	1,040,499,000	1,155,190,000
	<u>1,079,990,452</u>	<u>1,244,441,687</u>
Non-current:		
Long-term borrowings	654,802,542	506,362,555
Less: Present value of discount on long-term borrowings	(1,018,517)	(1,326,115)
Debentures	9,733,234,000	10,286,318,000
Less: Present value of discount on debentures	(5,872,980)	(6,546,565)
	<u>10,381,145,045</u>	<u>10,784,807,875</u>
	<u>₩11,461,135,497</u>	<u>₩12,029,249,562</u>

(2) Repayment schedule of borrowings and debenture are as follows:

① December 31, 2019

	(Unit: In thousands of Korean won)		
	Borrowings	Debenture	Total
In 1 year	₩39,491,452	₩1,040,499,000	₩1,079,990,452
1~5 years	205,744,800	4,237,454,000	4,443,198,800
After 5 year	449,057,742	5,495,780,000	5,944,837,742
	<u>₩694,293,994</u>	<u>₩10,773,733,000</u>	<u>₩11,468,026,994</u>

② December 31, 2018

	(Unit: In thousands of Korean won)		
	Borrowings	Debenture	Total
In 1 year	₩89,251,687	₩1,155,190,000	₩1,244,441,687
1~5 years	219,774,000	4,914,508,000	5,134,282,000
After 5 year	286,588,555	5,371,810,000	5,658,398,555
	<u>₩595,614,242</u>	<u>₩11,441,508,000</u>	<u>₩12,037,122,242</u>

(3) Details of short-term borrowings as of December 31, 2019 and 2018, are as follows:

(Unit: In thousands of Korean won)

Financial institutions	Interest rate	Maturity	December 31, 2019	December 31, 2018
Daewoo E&C Co., Ltd.	Libor+1%	2018	₩-	₩42,805,666

(4) Details of long-term borrowings as of December 31, 2019 and 2018, are as follows:

(Unit: In thousands of Korean won)

Financial institutions	Interest rate	Maturity	December 31, 2019	December 31, 2018
Long-term borrowings denominated in Korean won:				
Korea Development Bank	Floating interest rate	2020	₩19,774,000	₩42,179,600
KEB Hana Bank	Floating interest rate	2018	320,000,000	200,000,000
Long-term borrowings denominated in foreign currencies:				
Islamic Development Bank	Libor(6M)+4.75%	2024	296,542,487	310,628,977
KDB	Libor(2M)+0.90%	2021	45,154,200	-
Daewoon Engineering	2.79%	2021	10,430,623	-
Solomon Islands Government	0.80%	2054	2,392,684	-
Total			694,293,994	552,808,577
Less: Difference from present value of long-term borrowings			(1,018,517)	(1,326,115)
Less: Current portion of long-term borrowings			(39,491,452)	(46,446,021)
Net of long-term borrowings			₩653,784,025	₩505,036,441

(5) Details of debentures as of December 31, 2019 and December 31, 2018, are as follows:

(Unit: In thousands of Korean won, JPY and USD)

Series	Interest rate	Maturity	December 31, 2019		December 31, 2018	
			Foreign currency	Korean won	Foreign currency	Korean won
101st-241th	5.49%, etc.	01/14/2020- 12/21/2047		₩9,550,000,000	-	₩10,370,000,000
Land compensation (15-01-17-12)	2.60%, etc.	01/07/2017- 12/31/2020		499,000	-	5,689,000
Euro-USD bonds	3.88%, etc.	23/05/2022 - 20/05/2031	USD 850,000,000	984,130,000	USD 750,000,000	838,575,000
CHF bonds	0.15%	23/09/2023	CHF200,000,000	239,104,000	CHF200,000,000	227,244,000
				10,773,733,000		11,441,508,000
Less: Present value discount				(5,872,980)		(6,546,565)
Less: Current portion				(1,040,499,000)		(1,155,190,000)
				₩9,727,361,020		₩10,279,771,435

## 20. OTHER FINANCIAL LIABILITIES:

Details of other financial liabilities as of December 31, and 2018 are as follows:

	(Unit: In thousands of Korean won)			
	December 31, 2019		December 31, 2018	
	Current	Non-current	Current	Non-current
Derivatives	₩1,447,379	₩20,816,594	₩ -	₩42,484,008

## 21. LEASES:

### (1) Lease agreements

In previous year, the Group recognized lease liabilities in relation to the finance leases which was classified into finance leases according to K-IFRS 1017 in previous year. In this year, the Group has recognized right-of-use assets and lease liabilities in relation to the leases which was previously classified into operating lease for implementation of K-IFRS 1017. The Group recognized ₩1,436,550 thousand as expense for the leases of which underlying assets are below ₩ 6,000 thousand.

### (2) Right-of-use assets by class of underlying asset as of December 31, 2019, are as follows.

	(Unit: In thousands of Korean won)		
	Acquisition cost	Accumulated depreciation	Net book value
Right-of-use assets, Buildings	₩3,351,739	(₩1,334,313)	₩2,017,426
Right-of-use assets, vehicles	5,364,416	(1,950,763)	3,413,653
	₩8,716,155	(₩3,285,076)	₩5,431,079

### (3) Movements in right-of-use assets by class of underlying asset for the years ended December 31, 2019, are as follows:

	(Unit: In thousands of Korean won)					
	Net book value at Jan 01, 2019	Change on accounting policies	Acquisitions	Depreciation	Disposals	Net book value at Dec 31, 2019
Right-of-use assets, buildings	₩-	₩3,430,717	₩-	(₩1,413,291)	₩-	₩2,017,426
Right-of-use assets, vehicles	-	3,714,220	2,075,404	(2,375,971)	-	3,413,653
	₩-	₩7,144,937	₩2,075,404	(₩3,789,262)	₩-	₩5,431,079

(4) Details of lease liabilities as of December 31, 2019, are as follows.

	(Unit: In thousands of Korean won)
	<u>Acquisition cost</u>
Less than and equal to 1 year	₩3,067,726
Less than 1 year and more than and equal to 5 years	2,533,035
More than 5 years	-
Total undiscounted lease payments	5,600,761
Discounts on present value	(112,509)
Present value of the lease payments	<u>₩5,488,252</u>

(5) Current and non-current portions of lease liabilities as of December 31, 2019, are as follows.

	(Unit: In thousands of Korean won)
	<u>December 31, 2019</u>
Current	₩3,006,101
Non-Current	2,482,151
	<u>₩5,488,252</u>

(6) Movements in lease liabilities in relation to lease agreement for the years ended December 31, 2019, are as follows:

	(Unit: In thousands of Korean won)					
	Net book value at Jan 01,2019	change on accounting policies	Addition	Interest	Repayment	Net book value at Dec 31,2019
Lease liabilities	₩-	₩7,144,937	₩2,075,241	₩156,558	(₩3,888,484)	₩5,488,252

(7) Profit or loss in relation to the lease for the years ended December 31, 2019, are as follows.

	(Unit: In thousands of Korean won)
	<u>Acquisition cost</u>
Depreciation of right-of-use assets:	
Right-of-use assets, buildings	₩1,413,292
Right-of-use assets, vehicles	2,375,971
Payments of Interest	156,558
Payments for leases of low-value assets	1,436,550
	<u>₩5,382,371</u>

(8) The Company recognized ₩3,888,484 thousand as total cash outflow in statement of cash flows for the years ended December 31, 2019.

## 22. EMPLOYEE BENEFITS:

### (1) Defined contribution retirement benefit plan

The Group sponsors defined contribution plan for certain qualified employees. The plan assets are managed independently from the Group's assets by the plan administrator. If employees leave before they meet the requirements to be qualified for the defined contribution plan, the Group's contribution payable is reduced by the amount of the contribution lost.

Profit or loss recognized by defined contribution retirement plan for the years ended December 31, 2019 and 2018, are as follows:

	(Unit: In thousands of Korean won)	
	2019	2018
Cost of good sells	₩12,662,018	₩12,178,930
Selling and administrative expenses (Retirement benefit)	3,271,931	1,656,821
Other	818,320	767,649
	<u>₩16,752,269</u>	<u>₩14,603,399</u>

(2) Defined benefit retirement plan

① Actuarial assumptions as of December 31, 2019 and December 31, 2018, are as follows:

	(Unit: In thousands of Korean won)	
	December 31, 2019	December 31, 2018
Discount rate	2.13%	2.40%
Expected rate on plan assets	2.13%	2.40%
Future salary increase rate	4.19%	3.98%

② Details of expenses recognized in profit or loss for the years ended December 31, 2019 and 2018, are as follows:

	(Unit: In thousands of Korean won)	
	2019	2018
Current service costs	₩31,094,221	₩27,423,840
Previous service costs	31,898,171	-
Interest on obligation	4,908,409	4,533,457
Interest on plan assets	(314,839)	(275,228)
	<u>₩67,585,962</u>	<u>₩31,682,069</u>

The amounts recognized in employee expenses in the accompanying separate statement of comprehensive income for the years ended December 31, 2019 and 2018, are as follows:

	(Unit: In thousands of Korean won)	
	2019	2018
Cost of sales	₩31,261,700	₩25,287,717
Selling, general and administrative expenses	18,685,466	4,119,462
Others	17,638,796	2,274,890
	<u>₩67,585,962</u>	<u>₩31,682,069</u>

③ Present value of defined benefit obligations and fair value of plan assets as of December 31, 2019 and December 31, 2018, are as follows:

	(Unit: In thousands of Korean won)	
	December 31, 2019	December 31, 2018
Present value of defined benefit obligations	₩286,698,076	₩213,079,957
Fair value of plan assets	(20,311,212)	(13,115,849)
Recognized as defined benefit liabilities	<u>₩266,386,864</u>	<u>₩199,964,108</u>

④ Movements in present value of defined benefit obligations for the years ended December 31, 2019 and 2018, are as follows:

	(Unit: In thousands of Korean won)	
	2019	2018
Beginning balance	₩213,079,957	₩177,153,190
Current service costs	31,094,221	27,423,840
Previous service costs	31,898,171	-
Interest on obligation	4,908,409	4,533,457
Actuarial loss (gain)	11,153,385	10,793,299
Benefits paid	(5,436,067)	(6,823,829)
Ending balance	₩286,698,076	₩213,079,957

⑤ Movements in plan assets for the years ended December 31, 2019 and 2018, are as follows:

	(Unit: In thousands of Korean won)	
	2019	2018
Beginning balance	₩13,115,849	₩12,811,301
Operating commissions	(30,853)	(32,517)
Interest on plan assets	314,839	275,228
Actuarial loss	61,771	(38,906)
Contributions by employer directly to plan assets	7,238,509	257,584
Benefit paid by the plan	(388,903)	(156,841)
Ending balance	₩20,311,212	₩13,115,849

Accumulated actuarial loss recorded in other comprehensive income as of December 31, 2019 and 2018, is as follows:

	(Unit: In thousands of Korean won)	
	December 31, 2019	December 31, 2018
Accumulated actuarial loss	(₩21,255,366)	(₩12,847,923)

⑥ Main categories of the plan assets as of December 31, 2019 and December 31, 2018, are as follows:

	(Unit: In thousands of Korean won)	
	Fair value of plan assets	
	December 31, 2019	December 31, 2018
Financial deposits and others	₩20,311,212	₩13,115,849

For 2019, the actual return on the plan asset is ₩376,610 thousand.

## 23. Provisions

(1) Provisions as of December 31, 2019 and 2018, are as follows:

	(Unit: In thousands of Korean won)			
	December 31, 2019		December 31, 2018	
	Current	Non-current	Current	Non-current
Current provision for employment	₩99,340,692	₩-	₩88,064,261	₩-
Provision for lawsuit	34,330,845	-	-	34,330,845
Provision for greenhouse gas	6,638,670	-	3,747,484	-
Other current provision	2,199,745	-	4,993,429	-
	<u>₩142,509,952</u>	<u>₩-</u>	<u>₩96,802,174</u>	<u>₩34,330,845</u>

(2) Changes in provisions for the years of December 31, 2019 and 2018 are as follows:

### ① December 31, 2019

	(Unit: In thousands of Korean won)				
	Beginning	Transfer	Use	reversal	Ending
Current provision for employment	₩88,064,261	₩99,929,928	(₩88,653,497)	₩-	₩99,340,692
Provision for lawsuit	34,330,845	23,928,481	(23,928,481)	-	34,330,845
Provision for greenhouse gas	3,747,484	3,842,162	(950,976)	-	6,638,670
Other current provision	4,993,429	1,980,977	(4,774,661)	-	2,199,745
	<u>₩131,136,019</u>	<u>₩129,681,548</u>	<u>(₩118,307,615)</u>	<u>₩-</u>	<u>₩142,509,952</u>

### ② December 31, 2018

	(Unit: In thousands of Korean won)				
	Beginning	Transfer	Use	reversal	Ending
Current provision for employment	₩86,679,602	₩85,162,325	(₩83,777,666)	₩-	₩88,064,261
Provision for lawsuit	37,641,847	2,392,582	(5,703,584)	-	34,330,845
Provision for recovery	22,745,859	17,463,824	(40,209,683)	-	-
Provision for greenhouse gas	1,498,816	3,747,484	(1,498,816)	-	3,747,484
Other current provision	11,293,735	3,816,845	(13,497,067)	3,379,916	4,993,429
	<u>₩159,859,859</u>	<u>₩112,583,060</u>	<u>(₩144,686,816)</u>	<u>₩3,379,916</u>	<u>₩131,136,019</u>

## 24. GOVERNMENT GRANTS:

(1) Details of government grants as of December 31, 2019 and 2018, are as follows:

	(Unit: In thousands of Korean won)	
	December 31, 2019	December 31, 2018
Buildings	(₩5,010,476)	(₩5,315,130)
Intangible assets under development	(1,263,455)	(6,334,196)
Concession assets usage rights	(15,032,493)	(16,376,591)
	<u>(₩21,306,424)</u>	<u>(₩28,025,917)</u>

(2) Details of government grants related to assets for the years ended December 31, 2019 and 2018, are as follows:

(i) December 31, 2019

	(Unit: In thousands of Korean won)						
	Book value at Jan 1, 2019	Received	Acquisitions	Offset of depreciation	Profit	Others	Book value at Dec 31, 2019
Buildings	(₩5,315,130)	₩-	₩-	₩304,654	₩-	₩-	(₩5,010,476)
Intangible assets under development	(6,334,196)	(1,216,260)	-	-	-	6,287,000	(1,263,455)
Concession assets usage rights	(16,376,591)	-	-	1,344,098	-	-	(15,032,493)
	<u>(₩28,025,917)</u>	<u>(₩1,216,260)</u>	<u>₩-</u>	<u>₩1,648,752</u>	<u>₩-</u>	<u>₩6,287,000</u>	<u>(₩21,306,424)</u>

(ii) December 31, 2018

	(Unit: In thousands of Korean won)						
	Book value at January 1, 2018	Received	Acquisitions	Offset of depreciation	Profit	Others	Book value at December 31, 2018
Buildings	(₩5,786,451)	₩-	₩-	₩471,321	₩-	₩-	(₩5,315,130)
Intangible assets under development	(6,334,196)	-	-	-	-	-	(₩6,334,196)
Concession assets usage rights	(41,035,237)	-	-	1,344,098	-	23,314,548	(₩16,376,591)
	<u>(₩53,155,884)</u>	<u>₩-</u>	<u>₩-</u>	<u>₩1,815,419</u>	<u>₩-</u>	<u>₩23,314,548</u>	<u>(₩28,025,917)</u>

## 25. CONSTRUCTION CHARGES:

(1) Change in construction charge revenue in 2019 and 2018 are as follows:

	(Unit: In thousands of Korean won)	
	2019	2018
Offset with deferred construction charge revenue	₩451,656	₩281,930
Construction charge setoff with depreciation	485,843	485,843
	₩937,499	₩767,772

(2) Changes in deferred revenue relating to construction charge in 2019 and 2018 are as follows:

	(Unit: In thousands of Korean won)	
	2019	2018
Beginning	₩46,513,761	₩41,392,575
Increment	200,000	5,403,116
Deletion	(451,656)	(281,930)
Ending	₩46,262,105	₩46,513,761

(3) Changes in construction charge recognized as subtraction of assets are as follows:

	(Unit: In thousands of Korean won)	
	2019	2018
Beginning	₩4,403,786	₩4,889,628
Deletion	(485,843)	(485,843)
Ending	₩3,917,943	₩4,403,786

## 26. NON-FINANCIAL LIABILITIES:

Details of non-financial liabilities as of December 31, 2019 and December 31, 2018, are as follows:

	(Unit: In thousands of Korean won)			
	December 31, 2019		December 31, 2018	
	Current	Non-current	Current	Non-current
Advance payment	₩1,495,876,305	₩-	₩1,116,491,357	₩-
Accrued revenue	230,303	-	200,601	-
Withholdings	25,034,180	-	14,583,792	-
Long-term deferred construction charge revenue	22,364,405	-	60,290,392	-
Extra invoiced construction	-	46,262,105	-	46,513,761
Total	₩1,543,505,193	₩46,262,105	₩1,191,566,142	₩46,513,761

## **27. ISSUED CAPITAL:**

(1) Details of issued capital as of DECEMBER 31, 2019 AND 2018, are as follows:

(i) December 31, 2019

	(Unit: In thousands of Korean won)		
	Government	Others	Total
Share capital	₩8,292,549,916	₩608,416,367	₩8,900,966,283

(ii) December 31, 2018

	(Unit: In thousands of Korean won)		
	Government	Others	Total
Share capital	₩7,877,921,930	₩608,416,367	₩8,486,338,296

(2) Details of discount on shares issued as of December 31, 2019 and 2018, are as follows:

	(Unit: In thousands of Korean won)	
	December 31, 2019	December 31, 2018
Discount on shares issued	(₩10,845,946)	(₩8,841,164)

## **28. UNDISPOSED DEFICITS OF ULTIMATE PARENT COMPANY:**

(1) Details of undisposed deficits as of December 31, 2019 and 2018, are as follows:

	(Unit: In thousands of Korean won)	
	December 31, 2019	December 31, 2018
Legal reserve (*1)	₩-	₩-
Other legal reserve(*1)	-	-
Undisposed deficits	(606,345,438)	(722,140,291)
	(₩606,345,438)	(₩722,140,291)

(\*1) In accordance with the K-water Act, an amount equal to at least 20% of net income in each fiscal year is required to be appropriated as a legal reserve, until the reserve equals 50% of share capital. The legal reserve may not be utilized for cash dividends, but may only be used to offset a deficit, if any, or be transferred to share capital.

(2) Changes in undisposed deficits for the years ended December 31, 2019 and 2018, are as follows:

	(Unit: In thousands of Korean won)	
	2019	2018
Beginning balance	(₩722,140,291)	(₩917,017,301)
Profit for the period	124,202,296	248,607,867
Actuarial gain (loss)	(8,407,443)	(8,210,811)
Others	-	(45,520,045)
Ending balance	<u>(₩606,345,438)</u>	<u>(₩722,140,291)</u>

(3) Dividends paid for the years ended December 31, 2019 and 2018, are as follows:

	(Unit: In thousands of Korean won)			
	December 31, 2019		December 31, 2018	
	Investment	Dividend	Investment	Dividend
Investment	₩8,900,966,283	₩-	₩8,486,338,296	₩-

(4) Changes in actuarial loss for the years ended December 31, 2019 and 2018, are as follows:

	(Unit: In thousands of Korean won)	
	December 31, 2019	December 31, 2018
Beginning balance	(₩49,995,866)	(₩41,785,055)
Changes for the period	(11,091,614)	(10,832,205)
Tax effect	2,684,170	2,621,394
Ending balance	<u>(₩58,403,310)</u>	<u>(₩49,995,866)</u>

## **29. DISPOSAL STATEMENTS OF DEFICIT OF ULTIMATE PARENT COMPANY**

Disposal statements of deficit for the years ended December 31, 2019 and 2018 are as follows:

	(Unit: In thousands of Korean won)	
	2019	2018
	Expected date : 2019.02.25	Determined date : 2019.02.26
I. Undisposed deficit	(₩606,345,438)	(₩722,140,291)
Undisposed deficit	(722,140,291)	(917,017,301)
Net income	124,202,296	248,607,867
Actuarial gain(loss)	(8,407,443)	(8,210,811)
IFRS adjustment effect	-	(45,520,045)
II. Disposed amount	-	-
III. Undisposed Deficit carried forward	<u>(₩606,345,438)</u>	<u>(₩722,140,291)</u>

### 30. OTHER EQUITY COMPONENTS:

(1) Details of other equity factor as of December 31, 2019 and 2018 are as follows:

	(Unit: In thousands of Korean won)	
	December 31, 2019	December 31, 2018
Other equity surplus	(₩167,540)	(₩516,117)
Accumulated other comprehensive income	(45,632,324)	(54,075,982)
	<u>(₩45,799,864)</u>	<u>(₩54,592,099)</u>

(2) Changes of other equity surplus for the years ended December 31, 2019 and 2018 are as follows:

	(Unit: In thousands of Korean won)	
	December 31, 2019	December 31, 2018
Beginning	(₩516,117)	(₩1,628,759)
Equity changes of subsidiaries	348,577	1,112,643
Ending	<u>(₩167,540)</u>	<u>(₩516,116)</u>

(3) Changes in other comprehensive income for the years ended December 31, 2019 and 2018 are as follows:

#### ① 2019

	(Unit: In thousands of Korean won)				
	Gain (loss) on FVOCI	Gain (loss) on derivatives evaluation	Equity method equity changes	Foreign business translation gain (loss)	Total
Beginning	(₩31,496)	₩11,294,434	(₩13,019,863)	(₩52,319,057)	(₩54,075,982)
Changes	(85,352)	(3,439,606)	4,695,792	6,420,301	7,591,135
Tax effect	20,137	832,384	-	-	852,521
Ending	<u>(₩96,711)</u>	<u>₩8,687,212</u>	<u>(₩8,324,071)</u>	<u>(₩45,898,754)</u>	<u>(₩45,632,324)</u>

#### ② 2018

	(Unit: In thousands of Korean won)					
	Gain (loss) on FVOCI	Gain (loss) on AFC evaluation	Gain (loss) on derivatives evaluation	Equity method equity changes	Foreign business translation gain (loss)	Total
Beginning	₩-	(₩59,037)	₩15,027,817	(₩12,427,654)	(₩38,761,050)	(₩36,219,924)
Changes	(42,235)	59,037	(4,925,308)	(592,209)	(13,558,007)	(19,058,722)
Tax effect	10,739	-	1,191,925	-	-	1,202,664
Ending	<u>(₩31,496)</u>	<u>₩-</u>	<u>₩11,294,434</u>	<u>(₩13,019,863)</u>	<u>(₩52,319,057)</u>	<u>(₩54,075,982)</u>

### 31. REVENUE:

Details of revenue of the Group for the years ended December 31, 2019 and 2018, are as follows:

(Unit: In thousands of Korean won)

	December 31, 2019	December 31, 2018
Revenue from selling product:		
Held-for-sale land revenue	₩265,562,422	₩572,863,589
Water supply business revenue	1,155,253,619	1,142,324,992
Multipurpose dams business revenue	293,176,866	295,754,255
Power generation revenue	151,700,509	203,927,355
Dam management revenue	65,083,817	44,428,976
Ara waterway operation business revenue	28,123,865	38,939,997
Renewable energy revenue	84,775,075	78,448,826
Certified emission reduction	10,467,088	4,164,965
	<u>2,054,143,261</u>	<u>2,380,852,955</u>
Revenue from providing service:		
Local waterworks business revenue	145,302,961	160,590,884
Sewage treatment business revenue	28,047,607	24,323,432
Four River management business revenue	36,021,818	25,572,727
	<u>209,372,386</u>	<u>210,487,043</u>
Revenue from construction contract:		
Water resource revenue	71,825,552	73,308,462
Sewage construction revenue	9,463,020	5,642,838
Private investment construction revenue (waterworks)	253,207,326	440,707,365
Private investment construction revenue (multipurpose dams)	42,447,819	46,570,809
Private investment construction revenue (Kyung-in Canal Project)	2,430,662	3,830,910
	<u>379,374,378</u>	<u>570,060,384</u>
Other revenue:		
Foreign business revenue	7,887,581	9,063,715
Aggregate business revenue	-	16,591,185
Incidental business revenue	320,912,150	204,512,918
	<u>328,799,731</u>	<u>230,167,818</u>
	<u>₩2,971,689,756</u>	<u>₩3,391,568,200</u>

### 32. SELLING AND ADMINISTRATIVE EXPENSES:

Details of selling and administrative expenses of the Group for the years ended December 31, 2019 and 2018, are as follows:

	(Unit: In thousands of Korean won)	
	2019	2018
Contribution on employment benefit fund	₩14,593,874	₩6,758,000
Salary	56,713,831	53,818,288
Retirement benefit	19,422,242	3,025,391
Employment benefit expenses	7,623,933	6,699,299
Insurance	2,008,962	862,218
Depreciation	5,065,359	4,781,457
Amortization	539,752	630,023
Bad debt expenses (reversal)	30,228	50,866
Service fees	13,713,068	14,700,612
Advertisement expenses	9,257,232	9,753,437
Education and training expenses	5,540,213	5,707,574
Vehicle management expenses	321,103	361,369
Publication expenses	402,206	433,314
Business expenses	130,099	127,574
Rental expenses	1,436,550	1,758,762
Communication expenses	2,210,116	2,333,733
Taxes and duties	6,166,380	3,257,520
Supplies expenses	577,278	650,932
Sewage expenses	1,772,300	1,676,661
Repair expenses	11,544,568	9,247,816
Development expenses	39,177,469	36,424,189
Transportation expenses	1,795,989	2,478,129
Clothing expenses	722,619	200,071
Investigation expenses	53,721	489,235
Promotion expenses	852,372	960,074
Sales commission	909,071	980,145
Other selling and administrative expenses		
- Reward expenses	483,132	314,352
- Registration expenses	126,367	174,950
- Cooperation expenses	20,553	54,100
- Miscellaneous expenses	3,363,459	1,475,297
Total	₩206,574,046	₩170,185,388

### **33. OTHER REVENUE AND EXPENSES:**

(1) Details of other revenue for the years ended December 31, 2019 and 2018 are as follows:

	(Unit: In thousands of Korean won)	
	2019	2018
Reversal of other bad debt allowance	₩-	₩3,379,916
Reversal of bad debt allowance	3,006	-
Construction charge revenue	451,656	281,930
Rental revenue	2,216,340	2,386,175
Miscellaneous revenue		
- Compensation revenue	18,305,316	11,012,318
- Miscellaneous income	19,752,596	123,644,276
Total	₩40,728,914	₩140,704,615

(2) Detail of other expenses for the years ended December 31, 2019 and 2018 are as follows:

	(Unit: In thousands of Korean won)	
	2019	2018
Transfer of other provision	₩23,928,481	₩15,254,300
Other bad debt expenses	3,102,939	1,047,149
Contribution expenses	2,479,321	2,291,192
Miscellaneous expenses		
- Cost loss	79,567	104,885
- Miscellaneous loss	39,086,075	951,481
- Sale cancellation loss	6,092,772	258,865
- Sale return loss	567,017	237,942
Total	₩75,336,172	₩20,145,814

### **34. OTHER GAIN AND LOSS:**

Details of other gain and loss for the years ended December 31, 2019 and 2018, are as follows:

	(Unit: In thousands of Korean won)	
	2019	2018
Gain on disposal of tangible assets	₩1,818,295	₩999,291
Loss on disposal of tangible assets	(1,381,206)	(292,573)
Loss on disposal of intangible assets	-	(219,570)
Miscellaneous gain (loss)		
- Loss on disposal of inventories	(21,681)	(46,335)
- Loss on scrap of inventories	(126,824)	-
Total	₩288,584	₩440,813

### 35. FINANCIAL INCOME:

(1) Details of financial income for the years ended December 31, 2019 and 2018 are as follows:

	(Unit: In thousands of Korean won)	
	2019	2018
Interest income	₩79,674,307	₩22,092,759
Dividend income	33,176	31,651
Gain on valuation of financial assets at FVPL	30,014,872	-
Gain on evaluation of derivatives	39,225,000	34,547,000
Gain on transaction of derivatives	-	6,894,000
Gain on evaluation of foreign currencies	65,855	74,227
Gain on transaction of foreign currencies	226,448	977,311
Total	<u>₩149,239,658</u>	<u>₩64,616,948</u>

(2) Details of interest income for the years ended December 31, 2019 and 2018 are as follows:

	(Unit: In thousands of Korean won)	
	2019	2018
Cash and cash equivalent	₩77,955,198	₩19,733,400
Trade and other receivables	1,719,109	2,359,359
Total	<u>₩79,674,307</u>	<u>₩22,092,759</u>

### 36. FINANCIAL COST:

(1) Details of financial costs for the years ended December 31, 2019 and 2018 are as follows:

	(Unit: In thousands of Korean won)	
	2019	2018
Interest expenses	₩253,451,610	₩265,595,188
Loss on transaction of derivatives	-	810,000
Loss on valuation of financial assets at FVPL	27,638	24,772
Loss on evaluation of foreign currencies	80,296,270	109,709,786
Loss on transaction of foreign currencies	1,060	4,818,738
Total	<u>₩333,776,578</u>	<u>₩380,958,483</u>

(2) Details of interest expenses for the years ended December 31, 2019 and 2018 are as follows:

	(Unit: In thousands of Korean won)	
	2019	2018
Trade and other payables	₩2,491,184	₩65,949
Long-term borrowings	32,229,011	30,824,301
Debenture	344,160,303	366,016,953
Derivatives	24,392,413	27,237,023
Subtotal	<u>403,272,911</u>	<u>₩424,144,226</u>
Less: capitalization of interest cost	(149,821,301)	(158,549,038)
Total	<u>₩253,451,610</u>	<u>₩265,595,188</u>

### 37. INCOME TAX EXPENSE (PROFIT):

(1) Details of income tax expense for the years ended December 31, 2019 and 2018, are as follows:

	(Unit: In thousands of Korean won)	
	2019	2018
Current tax expense	₩416,890	₩11,881,171
Adjustment for prior years	(23,258)	(1,188,440)
Income taxes directly charged to equity	3,536,692	3,824,057
Origination and reversal of temporary differences	(30,807,896)	18,848,822
Total income tax expense (profit)	<u>(₩26,877,572)</u>	<u>₩33,365,610</u>

(2) Reconciliation of effective tax rate for the years ended December 31, 2019 and 2018, is as follows:

	(3) (Unit: In thousands of Korean won)	
	2019	2018
Profit before income tax expense	₩103,695,932	₩273,539,390
Income tax using the Company's statutory tax rate	25,094,416	66,196,532
Adjustments:		
Effect of graduated tax rates	(462,000)	(547,079)
Current adjustments for prior periods	(23,258)	(1,188,440)
Non-taxable income	(36,050)	(475,376)
Non-deductible expenses	4,198,279	5,654,647
Others	(55,648,959)	(36,274,674)
Income tax expense	<u>(₩26,877,572)</u>	<u>₩33,365,610</u>
Average effective tax rate	-	12.20%

(3) Details of tax effect recognized in other comprehensive income in 2019 and 2018 are as follows:

	(Unit: In thousands of Korean won)	
	2019	2018
Amount occurred on accounts recognized in other comprehensive income		
Gain (loss) on evaluation of derivatives	₩832,385	₩1,191,925
Gain (loss) on evaluation of fair value financial assets	20,137	10,739
Actuarial gain (loss)	2,684,170	2,621,394
Total	<u>₩3,536,692</u>	<u>₩3,824,058</u>

(4) Details of deferred tax assets (liabilities) as of December 31, 2019 and 2018 are as follows:

① December 31, 2019

(Unit: In thousands of Korean won)

	Beginning	Amount recognized in profit or loss	Amount recognized in other comprehensive income	Ending
Depreciation	₩104,334,645	₩989,193	₩-	₩105,323,838
Government subsidy	5,676,449	(40,819)	-	5,635,630
Construction charge	1,065,716	(117,574)	-	948,142
Deferred revenue of construction charge	11,256,330	(60,901)	-	11,195,429
Defined benefit obligation	43,993,595	15,603,240	2,684,170	62,281,005
Pension assets	(2,949,582)	(1,078,559)	-	(4,028,141)
Financial assets at FV	75,687	4,707	20,137	100,531
Investment stocks	5,075,258	1,499,612	-	6,574,870
Surplus of bad debt allowances	740,935	(109,411)	-	631,524
Special depreciation	(2,896,741)	114,762	-	(2,781,979)
Construction interest on inventory	(191,611,467)	(27,115,132)	-	(218,726,599)
Ownership tax on inventory	(8,445,433)	(3,077,656)	-	(11,523,089)
Accrued revenue	(41,531)	10,800	-	(30,731)
Taxes and duties	(3,601)	-	-	(3,601)
Pre-depreciation allowance	(16,262,239)	203,009	-	(16,059,230)
Dividend payable	(5,430)	-	-	(5,430)
Acquisition tax	(37,450)	-	-	(37,450)
Provision for lawsuit	9,362,531	(1,155,468)	-	8,207,063
Payment guarantee for foreign subsidiary	155,797	103,975	-	259,772
Loss on evaluation of derivatives	(30,324)	-	832,385	802,061
Depreciation of marina management right	1,225,815	-	-	1,225,815
Provision of greenhouse gas	906,891	699,667	-	1,606,558
Foreign currency ordinary deposit	4,612	280,540	-	285,152
Impairment on 4 major rivers	(242,000,000)	242,000,000	-	-
Foreign currency adjustment asset	5,545,146	-	-	5,545,146
Common purchase tax	232,244	(11,274)	-	220,970
Acquisition tax	134,336	(7,353)	-	126,983
Unclaimed contraction (contraction assets)	(81,125,427)	11,005,847	-	(70,119,580)
Four River Dam business revenue	-	230,133,393	-	230,133,393
Four River Dam business investments	-	529,024,091	-	529,024,091
Extra-invoiced construction	-	(9,178,089)	-	(9,178,089)
Labor cost of overseas expatriates	-	765,240	-	765,240
Others	(14,792,633)	2,572,688	-	(12,219,945)
Deficit carried forward	1,684,447,025	(792,858,620)	-	891,588,405
Subtotal	1,314,031,154	200,199,908	3,536,692	1,517,767,754
Deferred income tax assets with low realizability	(1,279,274,923)	(172,923,194)	-	(1,452,198,117)
Deferred tax assets (liabilities)	₩34,756,231	₩27,276,714	₩3,536,692	₩65,569,637

② December 31, 2018

(Unit: In thousands of Korean won)

	Beginning	Amount recognized in profit or loss	Amount recognized in other comprehensive income	Ending
Depreciation	₩9,621,978	₩94,712,667	₩-	₩104,334,645
Government subsidy	11,653,724	(5,977,275)	-	5,676,449
Construction charge	1,183,290	(117,574)	-	1,065,716
Deferred revenue of construction charge	10,017,003	1,239,327	-	11,256,330
Defined benefit obligation	33,861,796	7,510,405	2,621,394	43,993,595
Pension assets	(2,938,217)	(11,365)	-	(2,949,582)
Financial assets at FV	18,892	46,056	10,739	75,687
Investment stocks	3,347,189	1,728,069	-	5,075,258
Accrued expenses of aggregate management	5,504,498	(5,504,498)	-	-
Surplus of bad debt allowances	799,671	(58,736)	-	740,935
Special depreciation	(3,045,381)	148,640	-	(2,896,741)
Construction interest on inventory	(168,314,912)	(23,296,555)	-	(191,611,467)
Ownership tax on inventory	(4,704,404)	(3,741,029)	-	(8,445,433)
Accrued revenue	(10,108)	(31,423)	-	(41,531)
Taxes and duties	(3,601)	-	-	(3,601)
Pre-depreciation allowance	(15,459,355)	(802,884)	-	(16,262,239)
Dividend payable	(5,430)	-	-	(5,430)
Acquisition tax	(37,450)	-	-	(37,450)
Provision for lawsuit	11,676,148	(2,313,617)	-	9,362,531
Payment guarantee for foreign subsidiary	116,281	39,516	-	155,797
Loss on evaluation of derivatives	(1,222,249)	-	1,191,925	(30,324)
Depreciation of marina management right	1,225,815	-	-	1,225,815
Provision of greenhouse gas	362,713	544,178	-	906,891
Foreign currency ordinary deposit	4,612	-	-	4,612
Impairment on 4 major rivers	(242,000,000)	-	-	(242,000,000)
Foreign currency adjustment asset	5,545,146	-	-	5,545,146
Common purchase tax	243,518	(11,274)	-	232,244
Acquisition tax	141,689	(7,353)	-	134,336
Unclaimed contraction (contraction assets)	-	(81,125,427)	-	(81,125,427)
Others	(13,336,310)	(1,456,323)	-	(14,792,633)
Deficit carried forward	1,708,164,058	(23,717,033)	-	1,684,447,025
Subtotal	₩1,352,410,604	(₩42,203,508)	₩3,824,058	₩1,314,031,154
Deferred income tax assets with low realizability	(1,313,241,616)	33,966,693	-	(1,279,274,923)
Deferred tax assets (liabilities)	39,168,988	(8,236,815)	3,824,058	34,756,231

(5) Details of temporary difference not recognized as deferred tax assets in 2019 and 2018 are as follows:

	(Unit: In thousands of Korean won)	
	December 31, 2019	December 31, 2018
Temporary difference subtracted		
Taxable deficit	₩1,452,198,117	₩1,279,274,923

(6) Details of deferred tax assets are as follows:

	(Unit: In thousands of Korean won)	
	December 31, 2019	December 31, 2018
Deferred tax assets	₩65,627,785	₩34,814,380
Deferred tax liabilities	(58,149)	(58,149)
	<u>₩65,569,637</u>	<u>₩34,756,231</u>

### 38. CHARACTERISTIC CATEGORIES OF EXPENSES:

(1) 2019

(Unit: In thousands of Korean won)

	Changes in inventories	Selling and administrative expense	Cost of goods sold	Total
Changes in inventory:				
Raw materials	(₩454,310)	₩-	₩-	(₩454,310)
Products	(519,801,126)	-	-	(519,801,126)
Supplies	138,553	-	-	138,553
Other inventories	-	-	1,476,969,059	1,476,969,059
Purchased amount of inventories	-	56,713,831	369,003,335	425,717,166
Salary	-	19,422,242	46,913,815	66,336,057
Retirement expenses	-	7,623,933	39,268,193	46,892,126
Employment benefit	-	2,008,962	1,120,310	3,129,272
Insurance expenses	-	5,065,359	98,098,738	103,164,097
Depreciation	-	539,752	488,208,096	488,747,848
Amortization	-	101,065	-	101,065
Bad debt expenses	-	(70,837)	-	(70,837)
Service fees	-	13,713,068	49,764,214	63,477,282
Advertisement expenses	-	9,257,232	1,485,753	10,742,985
Education and training expenses	-	5,540,213	1,308,894	6,849,107
Vehicle management expenses	-	321,103	2,059,470	2,380,573
Publication expenses	-	402,206	765,506	1,167,712
Business expenses	-	130,099	10,951	141,050
Rental expenses	-	1,436,550	801,884	2,238,434
Communication expenses	-	2,210,116	5,932,908	8,143,024
Taxes and duties	-	6,166,380	88,268,261	94,434,641
Supplies expenses	-	577,278	1,914,246	2,491,524
Sewage expenses	-	1,772,300	4,072,535	5,844,835
Repairment expenses	-	11,544,568	118,395,523	129,940,091
Development expenses	-	39,177,469	2,222,636	41,400,105
Transportation expenses	-	1,795,989	14,099,587	15,895,576
Clothing expenses	-	722,619	4,829	727,448
Investigation expenses	-	53,721	130,585,214	130,638,935
Promotion expenses	-	852,372	-	852,372
Sales commission	-	909,071	-	909,071
Others	-	18,587,385	15,209,669	33,797,054
Total	(₩520,116,883)	₩206,574,046	₩2,956,483,626	₩2,642,940,789

(2) 2018

(Unit: In thousands of Korean won)

	Changes in inventories	Selling and administrative expense	Cost of goods sold	Total
Changes in inventory:				
Raw materials	₩369,506	₩-	₩-	₩369,506
Products	(516,604,949)	-	-	(516,604,949)
Supplies	(31,995)	-	-	(31,995)
Other inventories	36,454	-	-	36,454
Purchased amount of inventories	-	-	1,868,828,368	1,868,828,368
Salary	-	51,067,396	356,913,523	407,980,919
Retirement expenses	-	5,776,283	37,730,185	43,506,468
Employment benefit	-	6,699,299	39,292,464	45,991,763
Insurance expenses	-	862,217	852,532	1,714,749
Depreciation	-	4,781,457	83,821,760	88,603,217
Amortization	-	630,022	551,535,229	552,165,251
Bad debt expenses	-	50,865	-	50,865
Service fees	-	14,700,612	51,090,166	65,790,778
Advertisement expenses	-	9,753,437	1,102,821	10,856,258
Education and training expenses	-	5,707,574	1,158,885	6,866,459
Vehicle management expenses	-	361,369	1,957,129	2,318,498
Publication expenses	-	433,314	788,969	1,222,283
Business expenses	-	127,573	12,743	140,316
Rental expenses	-	1,758,762	3,813,666	5,572,428
Communication expenses	-	2,333,733	5,792,787	8,126,520
Taxes and duties	-	3,257,520	84,117,999	87,375,519
Supplies expenses	-	650,932	2,295,352	2,946,284
Sewage expenses	-	1,414,615	5,050,086	6,464,701
Repairment expenses	-	9,247,816	113,823,555	123,071,371
Development expenses	-	36,424,189	8,129,076	44,553,265
Transportation expenses	-	2,478,129	18,134,730	20,612,859
Clothing expenses	-	200,071	5,300	205,371
Investigation expenses	-	489,235	3,105,679	3,594,914
Promotion expenses	-	370,471	-	370,471
Sales commission	-	589,603	-	589,603
Others	-	10,018,894	22,238,867	32,257,761
Total	(₩516,230,984)	₩170,185,388	₩3,261,591,871	₩2,915,546,275

### 39. CATEGORIES OF FINANCIAL INSTRUMENTS:

(1) Financial assets and liabilities by categories as of December 31, 2019 and 2018, are detailed as follows:

#### ① December 31, 2019

(Unit: In thousands of Korean won)

Current financial assets	Financial assets at FVPL	Financial assets at FVOCI	Financial assets at AC	Derivative hedging-instrument-designated	Total
Cash and cash equivalents	₩147,824,152	₩-	₩-	₩-	₩147,824,152
Short-term loans	1,760,788	-	-	-	1,760,788
Trade and other receivables	694,635,902	-	25,481,673	-	720,117,575
Derivative instrument assets	-	-	-	1,269,071	1,269,071
<b>Total</b>	<b>₩844,220,842</b>	<b>₩-</b>	<b>₩25,481,673</b>	<b>₩1,269,071</b>	<b>₩870,971,586</b>

(Unit: In thousands of Korean won)

Non-current financial assets	Financial assets at FVPL	Financial assets at FVOCI	Financial assets at AC	Derivative hedging-instrument-designated	Total
Derivative instrument assets	₩-	₩-	₩-	₩79,457,604	₩79,457,604
Financial assets at FVPL	-	-	7,292,929	-	7,292,929
Financial assets at FVOCI	-	26,294,255	-	-	26,294,255
Long-term loans	14,991,463	-	-	-	14,991,463
Subtotal	₩14,991,463	₩26,294,255	₩7,292,929	₩79,457,604	₩128,036,251
Trade and other receivables	258,147,449	-	461,012,528	-	719,159,977
<b>Total</b>	<b>₩273,138,912</b>	<b>₩26,294,255</b>	<b>₩468,305,457</b>	<b>₩79,457,604</b>	<b>₩847,196,228</b>

(Unit: In thousands of Korean won)

Current financial liabilities	Financial liabilities at AC	Derivative hedging-instrument-designated	Total
Current portion of long-term borrowings	₩39,491,452	₩-	₩39,491,452
Debentures	1,040,499,000	-	1,040,499,000
Derivative instrument liabilities	-	1,447,379	1,447,379
Subtotal	1,079,990,452	1,447,379	1,081,437,831
Trade and other liabilities	434,095,685	-	434,095,685
<b>Total</b>	<b>₩1,514,086,137</b>	<b>₩1,447,379</b>	<b>₩1,515,533,516</b>

(Unit: In thousands of Korean won)

Non-current financial liabilities	Financial liabilities at AC	Derivative hedging instrument designated	Total
Trade and other liabilities	₩2,482,151	₩-	₩2,482,151
Long-term borrowings	653,784,025	-	653,784,025
Debentures	9,727,361,020	-	9,727,361,020
Derivative instrument liabilities	-	20,816,594	20,816,594
<b>Total</b>	<b>₩10,383,627,196</b>	<b>₩20,816,594</b>	<b>₩10,404,443,790</b>

② December 31, 2018

(Unit: In thousands of Korean won)

Current financial assets	Financial assets measured at amortized cost	Financial assets at FVOCI	Derivative hedging instrument designated	Total
Cash and cash equivalents	₩264,522,916	₩-	₩-	₩264,522,916
Short-term loans	1,700,412	-	-	1,700,412
Short-term financial assets	134,486,395	-	-	134,486,395
Trade and other receivables	766,712,676	-	-	766,712,676
Total	₩1,167,422,399	₩-	₩-	₩1,167,422,399

(Unit: In thousands of Korean won)

Non-current financial assets	Financial assets measured at amortized cost	Financial assets at FVOCI	Financial assets at FVPL	Derivative hedging instrument designated	Total
Derivative instrument assets	₩-	₩-	₩-	₩65,161,316	₩65,161,316
Profit or loss-fair value measurement financial assets	-	-	2,387,228	-	2,387,228
Other comprehensive income-fair value measurement financial assets	-	26,480,662	-	-	26,480,662
Long-term loan	16,237,327	-	-	-	16,237,327
Trade and other receivables	639,789,671	-	-	-	639,789,671
Total	₩656,026,998	₩26,480,662	₩2,387,228	₩65,161,316	₩750,056,204

(Unit: In thousands of Korean won)

Current financial liabilities	Financial liabilities measured at amortized cost	Total
Short-term borrowings	₩42,805,666	₩42,805,666
Current portion of long-term borrowings	46,446,021	46,446,021
Current portion of debentures	1,155,190,000	1,155,190,000
Trade and other payables	357,725,869	357,725,869
Total	₩1,602,167,556	₩1,602,167,556

(Unit: In thousands of Korean won)

Non-current financial liabilities	Financial liabilities measured at amortized cost	Derivative hedging instrument designated	Total
Long-term borrowings	₩505,036,441	₩-	₩505,036,441
Debentures	10,279,771,435	-	10,279,771,435
Derivative liabilities instrument	-	42,484,008	42,484,008
Total	₩10,784,807,876	₩42,484,008	₩10,817,291,884

(2) Financial income and costs by categories for the years ended December 31, 2019 and 2018, are as follows:

(Unit: In thousands of Korean won)  
December 31, 2019   December 31, 2018

Loans and receivables (including cash and cash equivalents):		
Interest income	₩79,674,307	₩22,092,759
Financial assets at FVPL:		
Gain (loss) on valuation, net	29,987,235	(24,772)
Dividend income	33,176	31,651
Derivative hedging instrument designated:		
Gain (loss) on transaction of derivative instruments, net	-	6,084,000
Gain (loss) on valuation of derivative instruments, net	39,225,000	34,547,000
Financial liabilities measured at amortized cost:		
Interest expense	(253,451,610)	(265,595,188)
Gain (loss) on foreign currency transactions, net	225,388	(3,841,426)
Gain (loss) on foreign currency translation, net	(80,230,416)	(109,635,559)
	<u>(₩184,536,920)</u>	<u>(₩316,341,535)</u>

#### 40. RISK MANAGEMENT:

##### (1) Capital risk management

The fundamental goal of capital management is to maintain the Group's going-concern ability and to maximize shareholders' value by means of minimizing capital finance cost. The Group's management audits the Group's capital structure periodically and maintains optimal capital structure by borrowings, capital increase and so forth.

The Group's financing ratio as of December 31, 2019 and 2018, are as follows;

(Unit: In thousands of Korean won)

	December 31, 2019	December 31, 2018
Net debt:		
Debts (borrowings and debentures)	₩11,461,135,497	₩12,029,249,563
Less: Cash and cash equivalents	(147,824,152)	(264,522,916)
	11,313,311,345	11,764,726,647
Equity	8,335,421,083	7,787,128,041
Total net debt and equity	19,648,732,428	₩19,551,854,688
Adjusted debt ratio	57.6%	60.2%

##### (2) Financial risk management

###### ① Goal of financial risk management

The board of directors is responsible for preparing overall systems for financial risk management and supervising financial risk management. The board of directors established Risk Management Committee to develop the strategy for financial risk management and supervise financial risk management. The committee audits the compliance of the risk management policy and procedure periodically and reports the results to the board of directors.

The Group's policies for financial risk management are prepared to recognize and analyze the Group's financial risk, establish the Group's risk threshold and control and manage the Group's financial risk to be not more than the risk threshold. The Group's risk management systems and policies are audited periodically to reflect the market environments and the Group's underlying operations. The Group makes employees understand their own roles and responsibilities and structures control environments by training employees and outlining financial risk management standards and procedures.

② Credit risk management

(a) Exposure to credit risk

The carrying amount of financial assets represents the maximum credit exposure. The Group limits its exposure to credit risk by depositing cash and cash equivalents in financial institutions that have a high credit rate. The maximum exposure to credit risk at the reporting date is as follows:

(Unit: In thousands of Korean won)

	December 31, 2019	December 31, 2018
Financial assets at FVPL	₩7,292,929	₩2,387,228
Financial assets at FVOCI	26,294,255	26,480,662
Short-term loans	1,760,788	1,700,412
Long-term loans	14,991,463	16,237,327
Trade and other receivables	720,117,575	766,712,676
Long-term trade and other receivables	721,474,473	639,797,337
Cash and cash equivalents	147,824,152	264,522,916
Short-term financial assets	-	134,486,394
Derivative assets used for hedging	80,726,675	65,161,316
Financial guarantee contracts (*)	180,720	180,720
	<u>₩1,720,663,030</u>	<u>₩1,917,666,988</u>

(\*) The above amounts are maximum amounts that the Company should pay in case the principal debtors make claims.

③ Liquidity risk management

(i) December 31, 2019

	Carrying amount	Contractual cash flows	(Unit: In thousands of Korean won)	
			6 months or less	6–12 months
Trade and other payables	₩436,577,836	₩436,690,345	₩434,157,310	₩-
Debentures	10,767,860,020	13,559,226,443	1,029,031,348	328,531,348
Borrowings	693,275,477	710,159,605	10,326,805	36,589,058
Derivative financial liabilities used for hedging	22,263,973	22,263,973	-	1,447,379
	<u>₩11,919,977,306</u>	<u>₩14,728,340,366</u>	<u>₩1,473,515,463</u>	<u>₩366,567,785</u>

	(Unit: In thousands of Korean won)		
	1–2 years	2–5 years	More than 5 years
Trade and other payables	₩-	₩2,533,035	₩-
Debentures	3,366,831,817	4,373,203,131	4,461,628,799
Borrowings	339,106,666	324,137,076	-
Derivative financial liabilities used for hedging	-	9,024,147	11,792,447
	<u>₩3,705,938,483</u>	<u>₩4,708,897,389</u>	<u>₩4,473,421,246</u>

(ii) December 31, 2018

	Carrying amount	Contractual cash flows	(Unit: In thousands of Korean won)	
			6 months or less	6–12 months
Trade and other payables	₩357,725,869	₩357,725,869	₩357,725,869	₩-
Debentures	11,434,961,435	8,792,413,064	488,617,525	1,035,591,525
Borrowings	594,288,128	618,892,339	57,281,160	38,515,915
Derivative financial liabilities used for hedging	42,484,008	42,484,008	-	-
	<u>₩12,429,459,440</u>	<u>₩9,811,515,280</u>	<u>₩903,624,554</u>	<u>₩1,074,107,440</u>

	(Unit: In thousands of Korean won)		
	1–2 years	2–5 years	More than 5 years
Trade and other payables	₩-	₩-	₩-
Debentures	1,343,643,373	4,761,401,523	1,163,159,118
Borrowings	19,102,420	216,578,012	287,414,833
Derivative financial liabilities used for hedging	4,249,900	19,937,487	18,296,621
	<u>₩1,366,995,693</u>	<u>₩4,997,917,022</u>	<u>₩1,468,870,572</u>

④ Currency risk

The Group's exposure to foreign currency risk is as follows based on notional amounts:

	(Unit: In thousands of Korean won)			
	December 31, 2019		December 31, 2018	
	USD	CHF	USD	JPY
Borrowings	352,127,310	-	353,434,642	-
Debentures	984,130,000	239,104,000	838,575,000	227,244,000

As of December 31, 2019, the Group entered into currency swap contracts to hedge foreign currency risk, and the currency swap was designated as a hedging instrument for a hedge of foreign currency risk related to liabilities denominated in foreign currencies.

Currency swap was designed to offset fluctuation of foreign currency-denominated liabilities; therefore, assuming all other variables are consistent, there might be no effect on income before taxes resulting from fluctuation in foreign exchange rate.

⑤ Interest rate risk

Borrowings with floating rates were exposed to interest rate risk. The Group entered into currency and interest rate swap contracts to hedge interest rate risk of a considerable portion of borrowings with floating rates. The Group measures its interest rate risk based on 100 basis points ("bp"), which reflects the management's assessment of reasonable level of interest rate risk.

(a) At the reporting date, the interest rate profile of the Group's interest-bearing financial liabilities is as follows:

	(Unit: In thousands of Korean won)	
	December 31, 2019	December 31, 2018
Debentures	₩170,000,000	₩170,000,000
Borrowings	691,901,310	595,614,242
	<u>₩861,901,310</u>	<u>₩765,614,242</u>

(b) Cash flow sensitivity analysis for variable-rate instruments

A change of 100 bp in interest rates at the reporting date would have increased (decreased) equity and profit or loss by the amounts shown below. This analysis assumes that all other variables, in particular foreign currency rates, remain constant. The analysis was performed on the same basis for 2018.

	(Unit: In thousands of Korean won)			
	December 31, 2019		December 31, 2018	
	100 bp increase	100 bp decrease	100 bp increase	100 bp decrease
Debentures and Borrowings	(₩8,619,013)	₩8,619,013	(₩7,656,142)	₩7,656,142

### (3) Fair values

#### ① Fair values versus carrying amounts

The fair values of financial assets and liabilities, together with the carrying amounts shown in the consolidated statements of financial position, are as follows:

	December 31, 2019		(Unit: In thousands of Korean won) December 31, 2018	
	Carrying amount	Fair value	Carrying amount	Fair value
Assets carried at fair value:				
Short-term financial assets	₩-	₩-	₩134,486,394	₩134,486,394
Financial assets at FVPL	7,292,929	7,292,929	2,387,228	2,387,228
Financial assets at OCI	26,294,255	26,294,255	26,480,662	26,480,662
Derivative instrument assets	80,726,675	80,726,675	65,161,316	65,161,316
Trade and other receivables	25,481,673	25,481,673	-	-
Long-term trade and other receivables	461,012,528	461,012,528	-	-
	<u>₩600,808,060</u>	<u>₩600,808,060</u>	<u>₩228,515,600</u>	<u>₩228,515,600</u>
Assets carried at amortized cost:				
Short-term loans	₩1,760,788	₩1,760,788	₩1,700,412	₩1,700,412
Trade and other receivables	694,635,902	694,635,902	766,712,676	766,712,676
Long-term loans	14,991,463	14,991,463	16,237,327	16,237,327
Long-term trade and other receivables	258,147,449	258,147,449	639,789,671	639,789,671
Cash and cash equivalents	147,824,152	147,824,152	264,522,916	264,522,916
	<u>₩1,117,359,754</u>	<u>₩1,117,359,754</u>	<u>₩1,688,963,002</u>	<u>₩1,688,963,002</u>
Liabilities carried at fair value:				
Derivative instrument liabilities	₩22,263,973	₩22,263,973	₩42,484,008	₩42,484,008
Liabilities carried at amortized cost:				
Debentures	₩10,767,860,020	₩10,767,860,020	₩11,434,961,435	₩11,434,961,435
Borrowings	693,275,477	693,275,477	594,288,128	594,288,128
Trade and other payables	436,577,836	436,577,836	357,725,869	357,725,869
	<u>₩11,897,713,333</u>	<u>₩11,897,713,333</u>	<u>₩12,386,975,432</u>	<u>₩12,386,975,432</u>

## ② Fair value hierarchy

The different levels have been defined as follows:

- ✓ Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities
- ✓ Level 2: Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e., as prices) or indirectly (i.e., derived from prices)
- ✓ Level 3: Inputs for the asset or liability that are not based on observable market data (unobservable inputs)

The table below analyzes financial instruments carried at fair value, by valuation method, as of December 31, 2019:

	(Unit: In thousands of Korean won)			
	Level 1	Level 2	Level 3	Total
Derivative financial assets	₩-	₩80,726,675	₩-	₩80,726,675
Profit or loss fair value measurement	-	-	493,787,130	493,787,130
Financial assets	-	-	26,294,255	26,294,255
Other comprehensive income-fair value measurement financial assets	-	-	26,294,255	26,294,255
Derivative financial liabilities	-	22,263,973	-	22,263,973

## **41. SERVICE CONCESSION ARRANGEMENTS:**

If the Group constructs or replaces a public facility, such facility is transferred to the national or local government, with no consideration received in return in accordance with Article 32 of the K-water Act. Under Article 9, Paragraph 1, No. 6, the Group may impose fees for goods sold or services provided by such facility

Under K-IFRS, the businesses related to “Water facility construction in progress,” “Dams construction in progress”, “Ara canal construction in progress” and “Local water facility construction in progress” of the Group fall under the ‘service concession arrangement.’ Therefore, sales and cost of sales are recognized using the percentage-of-completion method. The Group recognizes revenue to the extent that related costs of sales will result in revenue.

## 42. TRANSACTIONS AND BALANCES WITH RELATED COMPANIES:

(1) Details of related parties as of December 31, 2019, are as follows:

Control relationship	Related party
Ultimate parent company	Korean government
Associates	KWPP Holdings Co. and Angat Hydropower Co., Water Genesis, Surjitech, Sejong Tech, Pump Care

(2) Significant transactions that occurred in the normal course of business with related companies for the years ended December 31, 2019 and 2018, are summarized as follows:

① Payment guarantees providing to related parties as of December 31, 2019 do not exist.

② Details of compensation for main executives are as follows:

	(Unit: In thousands of Korean won)	
	2019	2018
Short-term Employee salary	₩1,025,986	₩1,048,686
Retirement benefit	49,318	4,866
Total	₩1,075,304	₩1,053,552

③ Assets pledged as collateral for related parties as of December 31, 2019, are as follows:

(Unit: In thousands of Korean won and USD, PHP)				
Financial Institutions	Related party	Collateral assets	Carrying amount	Borrowings
BPI, KEB Hana Bank, MayBank, UCPB, PBB, ShinHanBank, BoC	Angat Hydro Power Co.	Shares of Angat Hydropower Co. 20,360,980 stocks KWPP Holdings Co., 50 stocks	₩100,845,106	PHP 9,909,311

(\*1) Bank of the Philippine Islands (“BPI)

(\*2) United Coconut Planters Bank (“UCPB”)

(\*3) Public Bank Berhad (“PBB”)

#### 43. NON-CASH INVESTING AND FINANCING ACTIVITIES:

Significant non-cash investing and financing activities for the years ended December 31, 2019 and 2018, are as follows:

	(Unit: In thousands of Korean won)	
	December 31, 2019	December 31, 2018
Reclassification of construction in progress to asset	₩141,687,109	₩259,245,569
Reclassification of intangible assets under development to asset	28,904,472	201,226,588
Transfer to current portion of long-term borrowing	39,491,452	46,446,021
Transfer to current portion of debentures	1,040,499,000	1,155,190,000

#### 44. CONTINGENCIES:

##### (1) Assets pledged as collateral for other parties

As of December 31, 2019, the Group has provided 36,114 shares (book value: ₩180,720 thousand) of P-waters Corporation as collateral to NH Bank for the borrowings of P-waters Corporation.

##### (2) Litigations

There are 109 pending litigations as of December 31, 2019. The Group is a plaintiff and defendant in 15 and 78 litigations, respectively.

Details of pending litigations as a defendant as of December 31, 2019, are as follows:

Nature of litigation	Number of litigations	Amount of litigation	(Unit: In thousands of Korean won)
			Note
Claims for construction costs	14	₩101,909,249	Demand for additional payment
Claims related to construction and management of dams	15	71,727,624	Damage claims and compensation for loss
Claims for Four River Restoration Project	4	271,016,438	Compensation for loss
Claims for Ara waterway	3	8,011,034	Compensation for loss, Solicitation money
Claims for EDC in Busan	6	1,216,587	Compensation for loss, Return of unreasonable gain
Claims for GC in Songsan	5	9,896,260	Compensation for loss
Claims for Water Business	10	21,221,435	Compensation for loss, Repurchase
Other claims	21	117,642,924	Damage claims and others
	78	₩602,641,551	

The amount of provision the Company recognized with respect to the lawsuits is ₩34,330,845 thousand as of December 31, 2019.

### (3) Major construction contracts

As of December 31, 2019, the Group has entered into various contracts totaling ₩1,572.6 billion for the development of new cities and industrial complex sites and construction of water facilities, dams and others. In connection with these contracts, contractors have designated the Group as a beneficiary of performance guarantee insurance by Seoul Guarantee Insurance and Construction Guarantee and others amounting to 15% of total contract amount.

### (4) Credit line agreements

The Group has entered into loan agreements with KEB Hana Bank and four other Korean financial institutions. The available credit lines under these agreements amounted to ₩290,000 million as of December 31, 2019. The Group has not drawn any amount as of December 31, 2019.

### (5) Guarantees received

Details of guarantees received from the third parties of the Group as of December 31, 2019, are as follows:

(Unit: In thousands of USD)

Guarantees from	Guarantee amount	Description
The Export-Import Bank of Korea	USD 24,800	Equity injection guarantee for Star Hydro Power Ltd.