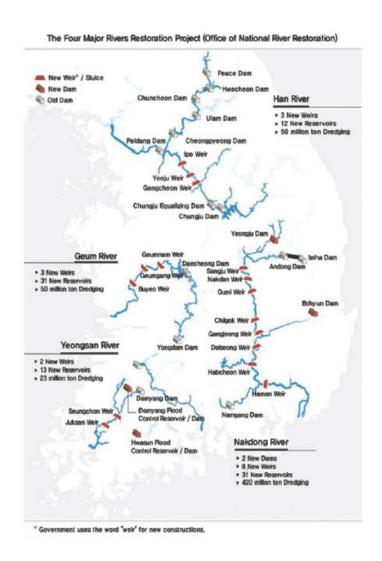
FREE THE RIVERS

The Truth of Korean Four Major Rivers Project



October. 2014. KOREA WETLANDS NGO NETWORK CITIZENS UNITED COMMITTEE FOR THE 4 RIVERS RESTORATION



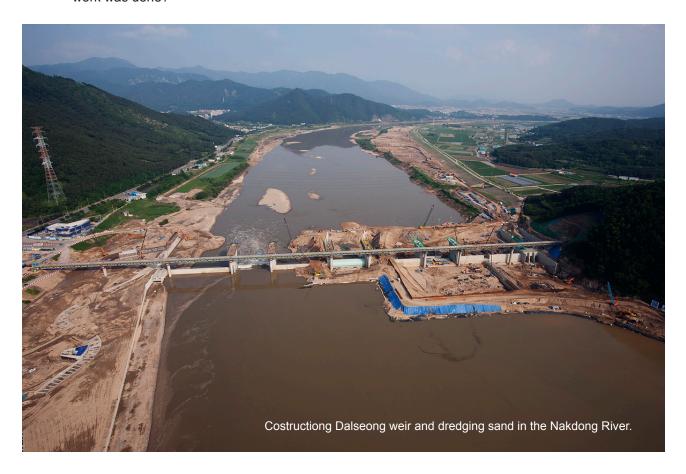
Mr. Lee Myung-bak, the former President of Korea, put forward as part of his a presidential election pledge in 2007 the 'Grand Canal of the Korean Peninsula' project. This project was about converting the existing four natural main rivers of Korea to an artificial canal. The project, however, was met with swift and severe public criticism following his inauguration. The public raised their voice that the project was not economically feasible and environmentally disastrous, and President Lee had to urgently speak to the nation in 2008 "If the people of Korea don't want this project, I won't push it forward", to guarantee the abandonment of the project. But Lee's administration started to re-implement the project under a new title called the "Four Major Rivers Restoration Project" in June of 2009. The core of this Four Rivers Project was to dredge 450 million m³ of sand in the Han, Nakdong, Geum, and Youngsan Rivers, and to construct 16

large-scale dams(which the government has called 'weirs'). It was also to add two more dams including the Youngju Dam in the Naesung River, the first tributary into the main Nakdong River, and to create artificial riverside parks and bicycle paths. The total budget for the project is expected to amount to about 22 billion won, making it the largest government project ever to have been undertaken in the Korean peninsula. Regardless of the 70% public opposition and nationwide protests calling for its abandonment, President Lee's administration started putting the project into practice in late 2009. By 2012, the projects seemed to have been near completion, but the discussion over its validity is still in process.

2. The Purposes of the Four Rivers Project

- River Restoration? or River Destruction?

What President Lee's administration had put forward as the Four Rivers Project's purposes were: Water quality improvement, restoration of the riparian ecosystem, preventing floods, ending drought, boosting local economy, etc. Were these purposes met after the scheduled construction work was done?



(1) Water quality improvement?

The Korean government said that by dredging the riverbeds and constructing the dams, the overall 'container size' of the river would get bigger and this should end in improving the quality of the river water. They insisted that more water necessarily would improve water quality since more water would dilute more pollutants. The reality is that ever since the dams were completed and slowed down the river flow, there have appeared in abundancy the toxic blue-green algae(Cyanobacteria) year after year. Since in Korea the river water has been used as drinking water source, this has been indicated as a very alarming signal in terms of the public health and safety. In some areas, COD (one of the water quality indexes) got plunged even below 'water for industrial use' level ¹.

¹ press release, "Water levels of 4 grand rivers fell into industrial water, according to COD standard", (Citizens United Committee for 4 Major Rivers Restoration, Jan 28, 2013)

(2) Restoration of the riparian ecosystem?

The Korean government said that the Project, once finished, would restore the existing riparian ecosystem "where no fishes and migratory birds can live". Yet due to the large-scale construction of dams and dredging of the rivers, the size of the wetlands has markedly decreased, causing a major disturbance to the river ecosystem. A number of the nation's various endangered fish have decreased in a very short period. Mass fish deaths also regularly take place. The number of the endangered mammals, amphibia, reptilia, and birds is also fast dropping. Overall, the indigenous ecosystem is at the risk of losing its own diversity and transforming it into a simple lacustrine ecosystem

(3) Prevention of floods?

Based on the explanation given by the Lee administration, the project should be able to prevent floods in advance by removing sediment from the riverbed and by controlling water levels using reservoirs. However, this claim seems to have been over-exaggerated and implausible considering that floods rarely occur around the four major rivers. In fact, more than 90 percent of floods occur around either regional or small rivers. The flood damage that have occurred in the 'state rivers'(including the four rivers) accounted for only 3.6%. According the 1999-2003 flood damage statistics, flood damage that has occurred in the state rivers was as low as 0.6-7.0% ². This is because the river maintenance work of the four main rivers had already been finished between the end of the 1990s and 2006.

(4) Ending drought?

The Korean government set out the logic of 'more water contained by the dams, less droughts'. The reality is that in Korea, drought-ridden regions that have frequently suffered from scarce water supply are placed in mountainous and coastal areas. The four main rivers, the prospective Four Rivers Project construction sites, were far from being the ones. The Korean government, having defined more water to be contained by the dams as 'emergency service water', has failed to clear up what its exact 'use' is. Although after having spent tremendous national budget the dams came to contain more water, that water has never been 'used' to solve



² "Research on Flood Prevention Policy in Basin areas", (Korea Disaster Prevention Association, 2008, p. 14)

(5) Boosting local economy?

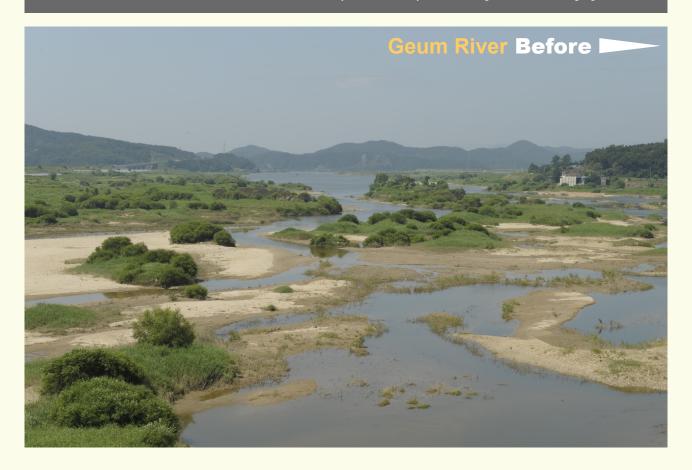
The Korean government claimed that the Four Rivers Project would bring on more developed local economy. The reality is that the farmers near the reworked rivers are going under a variety of failures ever since the Project got started. The farmers in Paldang, Gyunggi Province, the very place from where the Korean organic farming had bloomed, and the local residents around the to-be-submerged villages in Youngju where the Youngju Dam is being built had to be evicted from their beloved long-time homes. There are continually occurring farmland damages due to the rise of groundwater level in the Nakdong River areas where the Gangjeonggoryeong, Chilgok, Hapcheonchangnyeong Weirs were built and in the Youngsan River area where the Jooksan Weir was built. The raised groundwater level problem is of course being caused by the water containment with the weirs. In addition, there were reported very grave cases of local cultural heritage damage during the construction process. The damage done to the ruins of Wangheung Temple, Gomnaru(port) and Gomsansung(fortress) in the Geum River area, the promising candidates to be designated as a 'World Heritage', are some of the representative examples. This was well predicted since the Project had been preceded by practically no cultural heritage survey for those areas to be affected by the construction work ³.

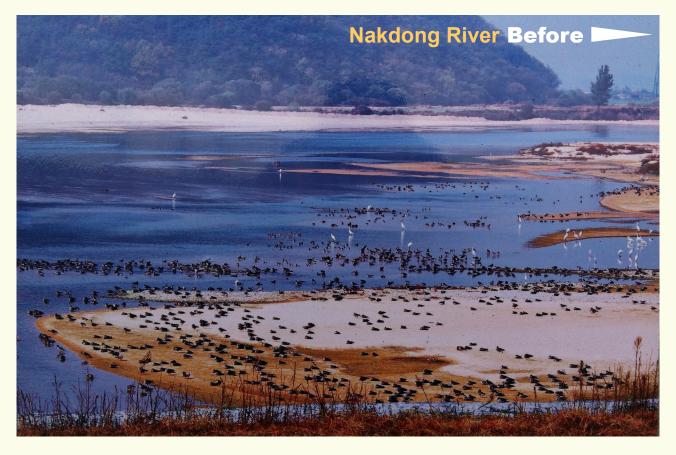
In brief, there is not a single 'purpose' of the Four Rivers Project that has been fulfilled in results. The reason is that the project from the very beginning was not for 'river restoration.' The Four Rivers Project has been the persistent 'grand canal' project with a sightly different title. This was even confirmed by the Board of Audit and Inspection of Korea after its audit of the Project in 2013. The Four Rivers Project was a project of river 'destruction', not that of river 'restoration'.



^{3 &}quot;Audit Report on the 4 Major Rivers Project", (The Board of Audit and Inspection of Korea, Oct, 2013)

Wetlands: Before vs After The size of the wetlands in the 4 rivers has markedly decreased by constructing dams and dredging rivers











The problems of the Four Rivers Project that were found out by the Board of Audit and Inspection of Korea & the public response

The Project audits were conducted by the Board of Audit and Inspection of Korea in three different times in 2013, and the outcome only reasserted what the environmental organizations and experts had been telling against the Project since before the construction got started.

January 2013

It turned out that the Four Rivers Project was a totally shoddy job. The Board of Audit and Inspection of Korea pointed that the weirs and their constructed parts were under unstable conditions due to the erroneous designing and shoddy construction work, and that water quality was also risked to get worse since it had poorly been managed. Also the over-estimated dredging turned out to have wasted the budget.

July 2013

The Board of Audit and Inspection of Korea admitted that the Four Rivers Project had been pushed as a pre-step toward the Grand Canal Project and as a result out of the Presidential Office's pres-



sures. It also turned out that the government had provided the big construction companies that had come to join the Project a reason for the bid rigging and its corrupt practices, and that the government's inadequate and practically non-existent response had nurtured illegality on a massive scale.

October 2013

The Board of Audit and Inspection of Korea also found out that in the process of the hurriedly pushed construction and during the previous impact-assessing period, there had been only a very shortly and poorly conducted cultural heritage survey. Important ground survey, preservation measures implementation, etc., had been omitted.

Based on these and other facts and evidence that were found by the Board of Audit and Inspection of Korea, about 40,000 people gathered and lodged a criminal charge of duty violation, authority abuse, evidence destruction, etc., with the prosecution against the former President Lee Myungbak and top officials who collaborated for the Project in October 2013. Above these, many suspected bid riggings and other irregularities that had taken place in the performance of the Project are either being investigated by prosecution or being found guilty by court.

The Four Major Rivers Project and Biological Diversity

The Four Major Rivers Project resulted in the cutting up of the main stream of the Four Major Rivers into several lakes by damming it up. The project caused radical changes to the environment which not only disturbed the ecosystem but also destroyed the biological habitat. After constructing the Yeongju Dam, the last remaining phase of the project involving the Naeseong River, which is renowned as the last Korean river to retain indigenous features intact, is also gradually losing these native features. Thus, there is no doubt the Four Major Rivers Project has adversely affected Korea's biological diversity ⁴.

[Changes in the ecosystem]

The diversity of natural habitats is being lost. During the Four Major Rivers Project, riverbeds were dredged and dams were built on the rivers. The multifarious habitat spaces such as shoals, swamps, wetlands and sand bars have been replaced by lakes of standardized shapes with stagnant waters. According to the simulation report written by the Korean Ministry of Environment, since the implementation of the project, the residence time of the waters in the four rivers has increased by between 1.7 times to 38.8 times ⁵. Stagnant water sets off a vicious cycle by first slowing down the flow of a river, wherein fine sediment is deposited in the riverbeds and then the riverbeds are settled by silt and clay instead of sands. Consequently, the project has not only destroyed the natural habitat of benthic organisms but also severely decreased the water quality.

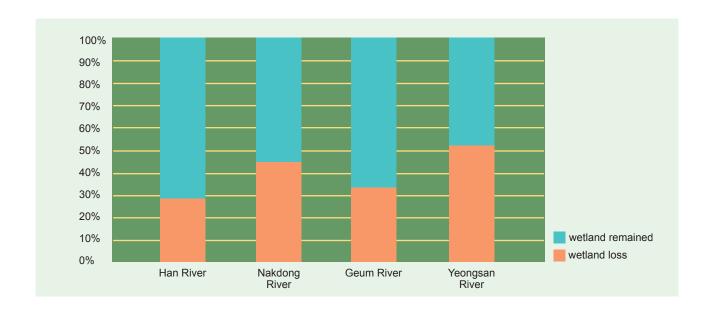
In addition, the area of wetland has also been scaled down in absolute terms. Comparing the size of wetland from before and after the dredging and dam construction, the loss is determined to be anywhere from 29.5% up to 52.6% (Han River: 29.5%, Nakdong River: 44.8%, Geum River: 33.4% and Yeongsan River: 52.6%) ⁶. Bawineupgubi Wetland of the South Han River and Haepyeong Wetland of the Nakdong River, an internationally renowned bird sanctuary, are exemplary cases of inland wetlands devastated by the Four Major Rivers Project. Although the Korean government argues that the newly built wetlands are capable of replacing the existing natural ones damaged by the project, studies indicate that these artificial wetlands are not functioning properly ⁷.

In addition to the decrease in wetland, habitat fragmentation has also been observed. After launching the project, the rivers have been dammed up to constantly store water, thus blocking the movement of wild animals at either side of the river. Furthermore, the destruction of natural habitats in the main streams has isolated tributaries preventing the migration of natural inhabitants while also threatening their genetic diversity.

⁴ These changes can be easily checked in the investigations of non-governmental organizations and/or governmental investigation reports. See, "A Study on Environment Monitoring of 4 Major Rivers Project" (Korea Environmental Institute, Dec., 2013) and "Aquatic Ecosystem Monitoring in Weir of the Han/ Nakdong/ Geum/ Yeongsan River" (National Institute of Environmental Research, 2013)"

⁵ See, "The Report on the Simulation Results of the Residence Time of Water in the Four Major Rivers" (National Institute of Environmental Research, 2013)

⁶ See, "A Study on Environment Monitoring of 4 Major Rivers Project" (Korea Environmental Institute, Dec., 2013)

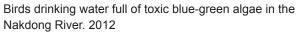


[Changes in the species]

1 Phytoplankton

Since the weirs were built throughout the rivers, there has been a frequent occurrence of algal blooms even in the regions that rarely turned green before the project such as the up- and mid-streams of the Nakdong River. Since the river flow has stopped, the dominancy of the blue-green algae has frequently been reported. According to the investigation on the changes of dominant species of phytoplankton in the upper and lower streams of 8 weirs in the Nakdong River, during four seasons, the dominance or sub-dominance of harmful cyanobacteria (toxic blue-green algae) broke out between 2012 and 2013 after the completion of the weir construction. Between 2010 and 2012, toxic blue-green algal bloom was reported only three times. Notably, the number of dominance and/or sub-dominance has increased to 21 and 27 in 2012 and 2013, respectively ⁸. Growth of harmful blue- green algae like *Microcystis* not only undermines the security of drinking water sources for citizens but also disturbs the ecosystem.







Microcystis, one of harmful cyanobacteria

⁷ See, "Evaluation of Wetlands within the Nakdong River Channel and its Tributaries" (National Institute of Environmental Research, 2012)

⁸ See, Press Release: "Anticipated disaster, Disappeared life and Destroyed River Ecosystem by the Four Major Rivers Project" (Citizens United Committee for the 4 Major Rivers Restoration, Jun. 19, 2014)

2 Fish

The Four Major Rivers Project caused a rapid decrease in the number of lotic fish species while increasing the number of lentic species. Because most Korean endemic and protected fish species are lotic, this raises some serious issues since it can severely damage the biological diversity. The representative endangered species, Gobiobotia aacrocephala and Gobiobotia brevibarba in the Han River and Gobiobotia naktongensis in the Naeseong River and Nakdong River are at risk of losing their natural habitats due to the project 9.

Also, native Korean species are being endangered by fast growing invasive species such as Micropterus salmoides (bass) and Lepomis macrochirus (blue gill). In particular, a large number of fish have been found dead over the years. 300, 000 fish in the Geum River in the fall of 2012 and more than 500 fish in the Nakdong River in the summer of 2014 reportedly died en masse. The reason for such a large number of deaths was later determined to be due to dramatic changes (depletion of dissolved oxygen, increased pH and devastated habitats in the riverbeds and riversides) in the river environment caused by the Four Major Rivers Project 10.



mass fish deaths in the Geum River. 2012



⁹ See, "Aquatic Ecosystem Monitoring in Weir of the Han/ Nakdong/ Geum/ Yeongsan River " (National Institute of Environmental Research, 2013)", Press Release: "Anticipated disaster, Disappeared life and Destroyed river ecosystem by the Four Major Rivers Project" (Citizens United Committee for the 4 Major Rivers Restoration, Jun. 19, 2014) and "Aquatic Ecosystem Health Assessment and Evaluation" (Ministry of Environment, 2008-2013)

¹⁰ See, "The Report for investigating fish died en masse in the Geum River 2012" (The Public and Private Joint Team for investigating fish died en masses in the Guem River, Chungcheongnam-do Provice, Sept. 2013) and "The Final Report on the Research and Analysis for investigating fish (skygager) died en masse in the direct downstream of Chilgok Weir" (National Institute of Environmental Research, Aug.2014)

| mass fish deaths in the Geum River. 2012 |



③ Macroinvertebrate

As for Macroinvertebrate, the lotic species are diminishing while, conversely, the lentic species are flourishing. Recent studies indicate that the number of pollution-tolerant species like *Chironomus plumosus prasinus* (midge) has been increasing.

(4) Mammals

Fewer and fewer endangered species like *Lutra lutra* (otter) and *Prionailuras bengalensis* (leopard cat) are inhabiting the riversides after the project. Wild animals are forced to inhabit vulnerable areas because the project not only removed the hideouts in the water side but also built artificial parks to allow easier access for people

⑤ Birds

Devastating the wetlands causes serious problems to the birds' habitats. In particular, open areas like sand bars are carried away, thus the species and numbers of winter visitors are on the decrease ¹¹. According to the report made before the Four Major Rivers Project, there were 41 legally protected species observed in the four rivers. However, as of 2012, only 18 species were reported. Species such as *Egretta eulophotes* (Chinese egret), *Platalea minor* (black-faced spoonbill), *Haliaeetus pelagicus* (Steller's sea-eagle), *Ciconia boyciana*

¹¹ See, "A Study on Environment Monitoring of 4 Major Rivers Project" (Korea Environment Institute, Dec., 2013)

(oriental White Stork) no longer inhabit the riverside areas of the four rivers 12.

6 Riparian Vegetation

The water level raised by storing the water in the weirs affects *Salix koreensis* (willow tree) by the riverside, causing them to wither away. The artificial parks are newly built on places where natural wetlands were devastated by the Four Major Rivers Project. Trees unsuitable for the skirts of rivers have been planted in the parks

and non-native plants are ever increasing. In the case of the Han River, the habitats for endangered species like *Aster altaicus Willd. var. uchiyamae Kitam.* and *Polygonatum stenophyllum Maxim* were devastated by the constructions of the project. To replace the devastated areas, compensatory habitats have been settled but there are still many cases in which plants are reported as not growing properly in those habitats newly created.



Salix koreensis(willow trees) withering in the riverside. 2014

7 Others

In 2013, shellfish on the riverbed died en masse in the Han River. This is assumed to have been caused by a lack of oxygen at the riverbed deposited by a muddy layer of fine sediment. It might also have been influenced by the residence time of water extended by the construction of weirs. In 2014, *Pectinatella magnifica* was observed across the four major rivers. This is a member of the Bryozoa phylum that lives in suspension in the river with little or no current. Before the Four Major Rivers Project, this kind of ecological phenomenon was rarely reported. Thus, the *Pectinatella magnifica* can be a meaningful indication that the four major rivers are on the formation process of several "lakes".



Mass deaths of the riverbed-inhabiting shellfish in the Han River. 2013



Pectinatella magnifica, found in the Geum River. 2014

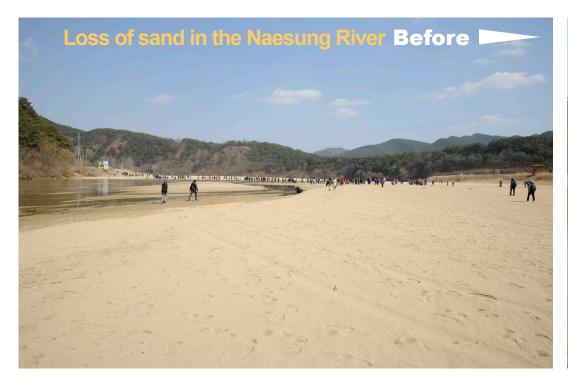
¹² See, "The Review on the Post Environmental Impact by the Four Major Rivers Project Part II" (The Parliament Inspection Report by the office of Rep. Jang, Ha-Na, 2013)

¹³ See, Press Release, "The South Han River is now in Ruins like a Shell Mound" (Citizens United Committee for the 4 Major Rivers Restoration, May 27, 2013)

4. The 'ongoing' Four Rivers Project: Youngju Dam in the Naesung River

The Naesung River, a tributary of the Nakdong River, is suffering from the construction of the Youngju Dam, the last derivative from the Four Rivers Project. The Naesung River is the river where the Korean archetypical sand river is still being seen. The River is also an excellent natural habitat ecologically for a variety of indigenous and endangered fauna such as Gobiobotia naktongensis, Charadrius placidus (long-Billed Ring Plover), Ciconia nigra (a black stork), etc., and flora such as willow forests, etc. On top of these, it is home to a wealth of Statedesignated cultural heritage sites such as Heoryongpo. Recently a batch of newly-unearthed treasure-level ruins and relics have been revealed. The Youngju Dam is being constructed in the mid and upper reaches of this Naesung River. This Dam, 380m long and 50m high, is a mega dam with the total storage capacity of 181.1 million m³. The main purposes of its operation are not to prevent floods, water supply, hydroelectric power generation, etc., but to send the water to the main Nakdong River. Although it is allegedly a 'multi-purpose dam', it is in reality a civil engineering and construction work that has obscure, highly suspicious purposes, and goes nowhere. Ever since the construction work began, drastic cases of ecological change in the Naesung River are being reported. A rare indigenous fish Gobiobotia naktongensis and sand are being declined. According to the contractor of the Youngju Dam, Korea Water Corporation, the Dam will sharply decrease the Naesung River's total supply of sand into the main Nakdong River by 85%, from 218,000 m³ to 185,000 m³. Half of the sand in the Nakdong River has been supplied from the Naesung River. It is indispensible for the Naesung River to maintain its natural system as a sand supplier, if we are to rehabilitate the original riparian state of the Nakdong River and renaturalize the Four Rivers. The rationale of the Youngju Dam construction cannot stand at all when it comes to the deplorable environmental destruction, the collapse of local communities, practically non-existent feasibility, etc., as its unavoidable outcomes.







5.

The second round of the Four Rivers Project

: A long-term State project of mega dams construction

In 2012, the Ministry of Land, Transport and Maritime Affairs (present Ministry of Land, Infrastructure, and Transport) announced a <Long-term Master plan for the dam construction (2012~2021)>. The Plan, the core of which is about constructing 14 new mega dams in tributaries, was confirmed without any opinion-collecting, discussing and decision-making process from all the stakeholders. The Plan is also facing harsh backlash from the local residents of the areas where the prospective construction sites are situated, since it has totally skipped the indispensible process of governance, and is socially generating a load of controversies in result. During the Strategic Environmental Assessment process the Plan even ignored an important opinion from the Ministry of Environment that has said "there's no validity in constructing so many dams".

The construction of mega dams affects their locality in every possible way. The local residents of the to-be-submerged areas have to leave their long-time homes. The environment and inland wetlands are destroyed on a massive scale. According to the above-mentioned Master Plan, some of the targeted areas include the Jiri Mountain, Youngyang District in North Gyeongsang Province, etc., and these areas are closely adjacent to a National Park, state-designated forests for the preservation of tree genes, etc., with a very high ecological value. According to the 2013 ecological survey conducted by the Green Korea United, the Jangpa Stream area, which is a target area for the construction of the Youngyang Dam, maintains an excellent level of biodiversity. It turned out that the Jangpa Stream area is a natural habitat for *Naemorhedus caudatus* (Amur goral) and *Lutra lutra* (otter)(endangered species I-degree), and for *Martes flavigula* (yellow-throated marten), *Prionailuras bengalensis* (a leopard cat), *Bubo bubo* (an eagle-owl) (endangered species II-degree), and for many endemic freshwater fish species. The construction of mega dams in these kinds of areas will become a fatal blow to life opportunities of such rare and important living organisms. On top of these, the Plan slaps in the face of the global water management trends which is about dismantling unnecessary and ecologically disastrous dams.

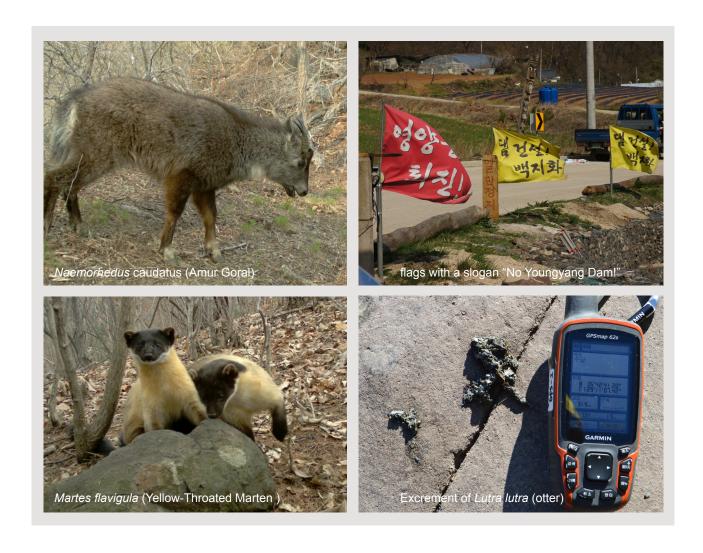




Obiobotia naktongensis, one of endangered species, inhabiting in the Naesung River



Yeongju dam constructed in the Naesung River. 2014



Opinions of river experts who visiting Korean 4 rivers

>> Professor **Hans Helmut Bernhart** (Karlsruhe University, Germany)

"Even though Korean government explains the objectives of the Four Major Rivers Project by promotional materials, those are not realistic and/or deliverable. Also, 'River Restoration,' the terminology adopted for explaining the Project's objectives is impractical. Whereas if we look at the scopes and necessity of the Project, it simply proves that this Four Major Rivers Project is just for constructing canals. Nevertheless, it is irresponsible if Korean government still insists the Project is designed for a ways of protecting environment. The rivers which used to flow in a great stream are dammed up and stagnating. Stream landscapes full of animated and energetic creatures and precious vegetation living on flood plains are totally destroyed."

"The only way of renaturalization of the Four Major Rivers is to let the rivers flow. The flow velocity regulates everything in river ecosystems. Freeing the river is the most important and its first step is just to open the gates of the weirs in the Four Major Rivers right away."

>> Professor **Imamoto Hirotake** (Kyoto University, Japan)

"Someday soon, the Four Major Rivers Project will be sure to end up disgraced as one of the most irrational and unhealthy events in the world during the twenty first century."

"The Four Major Rivers Project hardly achieves the expected outcomes in the aspect of functionality even with lack of its needs for the implementation and definitely destroys the river environment. It is a typical public project not required.

"The Four Major Rivers Project implemented by Korean government is more likely to destroy superb Korean river environment and also cause unprecedented disasters by immense floods. Thus, it would be recommended to restore the Four Major Rivers into their original forms considering the futility and harmfulness of the Project possibly contains even if the Korean government already made huge investment into the Project. We have been learning a sort of expensive lesson from this Project."

>> Professor Mathias Kondolf (UC Berkeley, U.S.A)

"The 4 Rivers project is not a restoration project, and its ecological effects are clearly negative overall. It involves by dredging the channel, constructing dams, and enlarging existing agricultural reservoirs, all activities long recognized as environmentally detrimental under the US Clean Water Act and the EU Water Framework Directive."

"I would like to see the justification for President Lee's CBD and Zayed prizes. These were evidently awarded by panels that lacked fluvial geomorphological and aquatic ecological expertise – no one with such expertise could competently regard the 4 Rivers project as environmentally benign."

>> Professor **Randolph T. Hester** (UC Berkeley, U.S.A)

"This project is not river restoration. It is largely river destruction. It is based on over engineering and outdated technology that was discredited over forty years ago.

Many rivers were engineered like this from 1900 - 1950 in the U.S., and the damage from such projects is now costing trillions of dollars to repair. True river restoration restores natural processes. Based on my research in the U.S. and Korea, I conclude that the 4 Rivers project does none of this and, in fact, destroys essential natural processes.

The Korean government has fooled much of the world into thinking the 4 Rivers destruction is green and sustainable. It is not.

What must be immediately done for Korean rivers is "Re-naturalization"

To overcome all the disastrous outcomes of the Four Rivers Project and to return the Korea rivers to the state they were before the Project, we demand that the following measures must be taken immediately:

1) The re-naturalization of the Four Rivers

The Four Rivers Project was not a 'restoration' project but a 'destruction' project. The immediate measures to renaturalize the rivers such as opening of the gates, etc., must be taken to preserve biodiversity and to build sustainable future. A river must flow. Returning the Four Rivers to their original, healthy, before-the-Project state will be the first major turning point in Korean environmental policy in this new era of '(genuine) restoration'.

2) Putting a stop to the construction of the Youngju Dam; and the preservation of the Naesung River

The Korean government must stop immediately the ongoing construction of the Youngju Dam and start taking solid and wholesome measures to restore and preserve the Naesung River. We don't need to 'prove' that the Four Rivers Project is a totally wrong state project, since the changed riparian environment itself tells it. There is no rationale whatsoever for continuing the construction of the Youngju Dam, the last derivative from the Four Rivers Project. The restoration and preservation of the Naesung River is an indispensible condition for the renaturalization of the Four Rivers.

3) Reconsidering the Long-term Master Plan for the mega dam construction from square one

The Korean government must reconsider the Long-term Master Plan for the Dam Construction from square one. Mega dam construction damages local communities and their cultures, and ruins the endemic ecosystems. The Korean government must learn from the hard lessons gained by other countries that have turned from the destruction toward the rehabilitation of natural rivers.

4) A paradigm shift in Korea's river management policy

The Korean government should bring a shift into its river management policy - from the one anchored around development to the one based on preservation and restoration of aquatic ecosystem, and by so doing, to enhance biodiversity. The Korean government had already admitted the importance of preserving the ecosystem in river management. But these trends got totally reversed during the previous Lee Myung-bak's government and its Four Rivers Project. This disastrous momentum is still on in almost all public development projects to destroy natural rivers and wetlands. The Korean government must accept proactively the current global environmental policy standards, the core of which is comprised of restoring the naturalness of rivers and preserving natural wetlands.

| Korean NGO Report of CBD COP12 | FREE THE RIVERS

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