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MESSAGE

Chairman Kim Jong Un sends blessings to Cuban Party leader

Supreme Leader Kim Jong Un sent a message of congratulation on June 2 to Raul Castro, first secretary of the Central Committee of the Communist Party of Cuba, on his 89th birthday.

The Supreme Leader, in the message, was pleased with the fact that the fraternal Cuban people are firmly safeguarding the country's sovereignty

and dignity and victoriously advancing the cause of socialism by overcoming manifold trials and difficulties under the leadership of the Communist Party of Cuba headed by its first secretary, and extended full support and solidarity to them.

Expressing the belief that the ties of friendship and cooperation between the

two strategic and comradely Parties and countries based on long-standing history and traditions would invariably be carried forward and developed, he wished the first secretary good health and greater success in his noble work of leading the Cuban revolution.

KCNA

STATEMENT

Pompeo daydreams of destroying Communist Party and socialism

"Branding socialism led by the Communist Party as dictatorship destroying the Western-style ideal, democracy and values, Pompeo cried out that he would build a world of the US and the West free from the rule by the Communist Party of China. Though in reverse order, his nonsensical remarks indicate an intention to dare to destroy even socialism in the DPRK led by the Workers' Party of Korea," said a spokesman for the International Affairs Department of the WPK Central Committee on June 3.

The statement came after US State Secretary Pompeo, in an interview with the US media on May 31, said that the US would work with its Western partners

to make the next century a world of the West which is modelled on "liberal democracy" the US enjoys.

It is not the first time that he spouted nonsense about China over the issues of Hong Kong, Taiwan, human rights and trade disputes, but what cannot be overlooked is that he viciously slandered the leadership of the Communist Party of China over socialism, he said.

Pompeo, who has been deeply engrossed in espionage and plot-breeding against other countries, said that the Communist Party today is different from what it was a decade ago, which shows he acknowledges that socialism led by the Communist Party

grows stronger day by day and he is anxious about the plight of the US which is doomed to ruin, he said.

This is the present reality of the crumbling US where demonstrators enraged by extreme racism through even to the White House and it is American-style freedom and democracy to stigmatize the demonstrators as leftists and threaten to break up demonstration by setting even the dogs on them, he derided.

Pompeo should not daydream of undermining the growing Communist Party and socialism, he added.

THE PYONGYANG TIMES

YOUTH

Lots of youths volunteer for labour-consuming sectors in five years

Over the past five years since the Second National Conference of Exemplary Young People of Virtue held in 2015, more than 105 000 young people have volunteered to work at major construction sites and other labour-consuming sectors.

Encouraged by Supreme Leader Kim Jong Un's speech delivered at the inaugural ceremony of the Paektusan Hero Youth Power Station in October 2015, thousands of young men and

women from different parts of the country voluntarily went to the construction site of Paektusan Hero Youth Power Station Unit 3 to contribute to finishing the project ahead of schedule.

At the time of rehabilitation of the country's flood-afflicted northern areas four years ago, over 46 000 youths rushed to the rehabilitation sites during the first one month after the Central Committee of the Workers' Party of Korea issued an appeal.

Hundreds of youth league officials and other young working people have annually volunteered to work at the construction site of Samjiyon in the northern alpine region and many others at coal mines and other major economic sectors.

And hundreds of university graduates have offered to work as teachers at schools on remote islands and in mountain villages.

KCNA

STATEMENT

Senior official warns s. Korea against inviting disaster

"If they fail to take appropriate steps against the malicious invective that has been hurled against the fellow countrymen from the south, the south Korean authorities will have to get themselves fully ready for such possibilities as the complete removal of the already desolate Kaesong Industrial Park following the termination of the tour of Mt Kumgang, the shutdown of the north-south joint liaison office whose existence only adds to trouble or the scrapping of the north-south agreement in the military field which is hardly of any value," said Kim Yo Jong, first deputy department director of the Central Committee of the Workers' Party of Korea, on Thursday.

The statement came after the "defectors from the north" scattered hundreds of thousands of anti-DPRK leaflets offending its supreme dignity and finding fault with the "nuclear issue" towards the northern areas on the front line on May 31.

She said she would like to ask the south Korean authorities if they were ready to deal with the aftermath of the deeds of the rabble of defectors who took no scruple to slander the DPRK while finding fault with the "nuclear issue" in the meanest way and at the most inopportune time.

"I detest those who feign ignorance of or encourage evil deeds more than those who commit them," she said, adding the south Korean authorities would be unable to say they do not know the provisions of the Panmunjom Declaration and the agreement in the military field in which both sides agreed

to ban all hostile acts including leaflet-scattering in the areas along the Military Demarcation Line.

Asserting there should be a modicum of discretion, however deep north-south hostile relations are and however pent-up enmity toward the fellow countrymen is, she said it was hard to understand how such base and sordid act of hostility is tolerated in the south at the time as now.

If such malicious act, which is committed without hesitation in the run-up to the 20th anniversary of the June 15 North-South Joint Declaration, is left unchecked on the pretext of "freedom of individuals" and "freedom of expression", the south Korean authorities will have to face the worst situation before long, she warned.

If they truly value inter-Korean agreements and have the will to thoroughly implement them, they should clear their house of rubbish before absurdly talking about "proper response", she noted, urging them to make at least a law for prohibiting the farce of human scum and take thoroughgoing preventive measures against any nasty action.

"Good faith and hostility can never go together and reconciliation and confrontation are incompatible," she pointed out.

"Given they must have seen time and again such instances of expectations turning into despair and hope ending in nothing, they had better do what they have to do if they do not want to face the worst situation."

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PROJECT

Mt Paektu area on a path for global geopark status

The DPRK National Commission for UNESCO presses on with the inscription of the Mt Paektu area as a UNESCO Global Geopark.

It decided in 2018 to inscribe the area as the first global geopark in the country and sent a letter of nomination according to the procedures set

by UNESCO, before submitting an application dossier last year.

The dossier is now under deliberation by UNESCO.

The Mt Paektu area was registered as the country's first World Biosphere Reserve in 1989.

KCNA

OPINION

Foreign personages, media appreciate DPRK's anti-epidemic work

"The epidemic threatening the future and health of mankind has not spread over the DPRK since Supreme Leader Kim Jong Un took crucial state measures for the prevention of the virus with his foresightedness and all the Korean people upheld his leadership in one mind and purpose," said Pakistani personages at an internet seminar.

The chairman of the British Association for the Study of Songun Policy stated that all state affairs are successfully carried on only in the DPRK, though the countries styling themselves advanced nations in the anti-epidemic work are in trouble due to the spread of COVID-19.

The official representative of the Brazilian branch of the Korean friendship association said in an article posted on his website that the anti-epidemic measures taken by the DPRK to

cope with the infectious disease serve as the model and excellent example of the world, while the chief of the Bulgarian Group for the Study of Kimilsungism-Kimjongilism and the chairman of the Sweden-Korea Friendship Association said the fact that no infected or confirmed cases were found in the DPRK proves the validity of the policy of the Korean Party and government.

The world media outlets including those of Nepal, Cambodia, Kuwait, Nigeria, the Democratic Republic of Congo and Uganda devoted broad coverage to the anti-epidemic measures taken by the DPRK.

Newspapers and websites reported that the DPRK in the Orient remains as clean land with no COVID-19 case although the whole world is being infected with the deadly virus.

What is particularly remarkable in the anti-epidemic work of the DPRK

is foresightedness and adroit organizing and mobilizing ability of its leadership body, they said, adding the Korean Party and government set up the state emergency anti-epidemic system for the first time in the world to prevent the epidemic with deep insight into the gravity and aftereffect to be entailed by the spread of novel coronavirus.

Another factor the DPRK can achieve successes in the anti-epidemic work is the single-minded unity of all the people rallied around the leader, they reported. The Korean people have ensured the unity of action as intended by the leadership body which declared a state anti-epidemic emergency and this can hardly be achieved unless there is the absolute trust of its people in their leader, they noted.

KCNA



PAK KWANG HUN

Newcomers attend the first lesson at Kim Song Ju Primary School in Pyongyang on Wednesday. All the schools, primary and middle, throughout the country opened after a few month's hiatus as they strictly comply with the ongoing anti-epidemic measures.

INSPECTION

Premier inspects waterway, rice-transplantation in North Hwanghae

Premier Kim Jae Ryong, member of the Political Bureau of the Central Committee of the Workers' Party of Korea and member of the DPRK State Affairs Commission, inspected the Miru Plain waterway and rice-transplantation in Koksan and Singye counties of North Hwanghae Province.



Premier Kim Jae Ryong (third from left) inspects rice-transplanting on the Sinhung Cooperative Farm in Singye County, North Hwanghae Province.

Making the rounds of the waterway in the Miru Plain, Kim said that measures should be taken to timely supply materials needed for its management and plant many trees of good species along it for protection.

After learning about the rice-transplantation in the Songrim Cooperative Farm in Koksan County and the Sinhung Cooperative Farm in Singye County, he referred to the need to introduce rice varieties with short growing period and

stimulate the farmers' interest in production by effectively applying the field assignment system within the framework of the sub-workteam management system.

At the Singye Miru Plain Land Improvement Enterprise he discussed the issues arising in planting crops that suit the pedological features of the Miru Plain.

KCNA

Nationwide

Stamp issued on ICD anniversary

The State Stamp Bureau has brought out a miniature sheet in commemoration of the 70th anniversary of International Children's Day which fell on June 1.

Seen on the upper part of the sheet are letters reading "The 70th anniversary of International Children's Day" in Korean and English. Contained on it are a star-shaped stamp depicting Korean and foreign children playing a game, the words and score of the Korean people's favourite song *We Are the Happiest in the World* and Kyongsang Kindergarten which gained fame for having produced world-level music prodigies.



Planting of fruit trees encouraged in countryside

Many households in rural communities of the DPRK are planting fruit and other trees around their homes.

In North Phyongan Province, each family grows 10 to 15 fruit and other trees of good species, and the number of such households amounts to tens of thousands in North Hamgyong Province.

Planting fruit and other trees of good species around farmhouses has been

encouraged for decades, and villages named after apricot, persimmon and *Evodia daniellii* can be seen everywhere.

Tideland reclamation project proceeds apace



The primary dam construction has been finished in the second district of the Woldo tideland reclamation project in North Phyongan Province.

The General Tideland Reclamation Enterprise of North Phyongan Province built a dozens-of-metre-long dyke by carrying and filling over 10 000 cubic metres of rubble stones and earth on a daily average, while introducing valuable plans including a method of building bank in two layers according to the variance of seawater level and a method of protecting the bed in the final damming-up section.

The completion of the primary dam in the district has provided a good prospect for finishing the project ahead of schedule.

The general enterprise is now speeding up the dyke reinforcement and the construction of the emptying gate in the district.

Seabuckthorn forests created in northern highlands

Hundreds of thousands

of seabuckthorns of a good variety have been planted in over 70 hectares of northern alpine areas of Ryanggang Province in recent years.

The Academy of Forest Science of the General Forest Bureau under the Ministry of Land and Environment Protection bred a good variety of seabuckthorn, or vitamin tree, and established its cultivation technology, thereby laying a foundation for spreading it in the northern alpine areas.

The experimental workteam of an institute under the academy produced and sent a large number of vitamin-tree saplings to various parts of the province and harvested a huge amount of fruits to produce drinks and medicine.

Various units in different parts of the province like Samjiyon and Tachongdan and Samsu counties work to cultivate the tree in a wide area.

New commuter boats launched for students from mountain villages



Newly built students' commuter boats have started service in the DPRK.

The boats started plying the school commute routes of students from mountain villages in Manpho city and Jasong, Tongsin, Songwon and Rangnim counties of Jagang Province on June 3, on the occasion of the 74th anniversary of the Korean

Children's Union.

The villagers waved their hands to give a warm send-off to the children who were elated to be aboard the boats pushing their way through ripples.

Organic compound fertilizer output doubles

Organic compound fertilizer output has doubled in the DPRK over the same period of last year.

North Phyongan Province hit its fertilizer production target for this year that is hundreds of thousands of tons greater than

last year.

Farms produced over two tons of more fertilizer per hectare than planned.

South Hamgyong Province fulfilled its annual production plan for the organic fertilizer.

North Hwanghae Province overfulfilled its plan by over 20 percent.

Farms in South Hwanghae Province also produced a large quantity of the fertilizer to provide a guarantee for increased grain output.

THE PYONGYANG TIMES

ECONOMIZATION

To build cost- and labour-saving businesses

Less is more

“Much concerned about the depletion of resources, many countries are paying much attention to the economical use of them, and such a trend is also growing in the DPRK amid the nationwide interest,” said an official of the State Planning Commission.

The Fifth Plenary Meeting of the Seventh Central Committee of the Workers' Party of Korea held last December pointed out that all sectors, units and citizens should make efforts to increase production and practise economy to the maximum so as to create more of their own things and save them as many as possible, noting that the models to be followed in the present era are the patriotic working people who regard the spirit of economy as part of their mental qualities, as well as the labour-, energy-, cost-, and land-saving enterprises.

Now there is an increasing tendency towards founding saving-oriented businesses in the whole of the economy including industries, agriculture, architecture and public service, while ordinary households are adopting a good habit of saving water, electricity and coal.

The Kim Chaek and Hwanghae iron and steel complexes and other metal industrial bases are making progress with the installation of new floating-preheating oxygen blast furnaces.

“When completed, the furnace will help slash the oxygen consumption, save much material and fuel and boost productivity,” said an official of the Ministry of Metallurgical Industry. On the basis of the completion of the design for the furnace last year, the construction is proceeding apace this year.”

The Chongchongang Thermal

Power Station established an automatic combustion stabilization control system in a boiler for generator, saving several tons of heavy oil and hundreds of tons of coal every month.

The Hungnam Electrode Factory remodelled a graphite heat-treatment furnace into a more economical one, thereby doubling the productivity and reducing the power consumption to a third and the operation time by half.

The Hamhung Flour Mill in South Hamgyong Province refashioned the wheat flour production process into a saving-oriented one to increase the productivity 1.5 times while decreasing the power consumption by over 50 percent and reducing the labour to one fifth, the production area to a fourteenth and the number of machines to one tenth. It also upgrades equipment constantly so as to systematically lower the norm of materials consumption per unit of output. By remodelling the grading process, it reduced the power consumption to one fourth and the hourly water consumption to one sixth, while raising the amount of flour yielded from wheat by five percent.

With the equipment upgrading period constantly shortened, the mill's production plan accomplishment rate increased by 40 percent as compared to the periods before the upgrading and the technical specifications of flour such as actual yield and moisture content are firmly ensured, according to the chief engineer of the factory.

The recent achievements in science and technology are, nearly without exception, oriented towards saving costs and energy.

“In the past, our mine's production records were not

satisfactory. But now we are taking a leading position in the complex,” said the chief engineer of the Joyang Mine of the Kacchon Area Coal-mining Complex, attributing its success to the economical use of supplies.

The mine reduced the consumption of wooden props to one fourth by installing metal props for drifts and raises and cuts the amount of drills to be purchased from 500 to 150 by introducing drill adapters.

The Sinuiju Reed Processing Factory in North Phyongan Province developed a reed fibreboard production technology, which has enabled it to lessen the reliance on timber in the production of various goods such as plywood and shuttering.

The factory's reed fibreboard has a great bending strength, a moisture absorptivity of 10 percent and a production cost much less than plywood. The introduction of waterproof shutterings made with the fibreboards into construction sites in the province proved that they can be reused for over 15 times.

The material science faculty of Kim Il Sung University developed a nano-compound fuel additive.

One gram of the additive in 1kg of fuel oil can help save fuel by 10-15 percent in a gasoline engine and 15-20 percent in a diesel engine, while substantially reducing the emission of harmful gas.

“The current moves taking place across the country to harness natural energies and develop the recycling industry also reflect the present trend of saving resources,” said an official of the State Academy of Sciences.

By Jong Hwa Sun PT

Production processes transformed into economy-oriented

The Pyongyang Mechanical Pencil Factory in Central District, Pyongyang, carries on a dynamic saving drive.

“At the time of its establishment, our factory produced only two kinds of mechanical pencils. But now, we produce nearly 10 kinds of the pencils and ballpoint pens bearing the brands of Chodujong (first agenda), Choedung (top honour) and Jindallae (azalea). The key to success is the factory's steady efforts to turn all the production processes into cost-, labour- and energy-saving ones,” said manager Ri Yong Chol.

The factory encourages all employees to come up with at least one invention or technical finding for establishing economy-oriented production processes.

In the course of this, valuable technical innovation plans have been introduced into production.

One of them is that for a power-free steam production process.

In the past the factory generated steam needed for the production of materials for the lead of mechanical pencil using a 100kW electric boiler, but it took five hours to produce the steam.

“The new power-free steam production process enables us to produce steam for production in an hour,” said chief engineer Kim Song Ho.

As a result, the factory has increased productivity 1.5 times while saving 78 000kW of electricity every year, and provided workplaces with heating by dint of that steam.

They also manufactured and introduced a device for fixing together the gel ink pen cap and inner rubber tip, thereby increasing productivity five times while reducing labour force to a fifth.

According to Kim Jong Hyok, head of the technical department, the factory will be able to save much more labour when it completes the sorting and packing machine for mechanical pencil lead it is now working on.

By Yun Kyong II PT



SONG YONG SOK

A worker checks a production process of gel ink pen at the Pyongyang Mechanical Pencil Factory.

activities, idle material bins classified according to kind of waste can be found everywhere in its cities and counties, and the plastic waste, wastepaper, scrap glass and other refuse thus collected are used to make tubes, water pipes, buckets, notebooks, soaps and the like.

The Wonsan Disabled Soldiers' Essential Plastic Goods Factory in Kangwon Province sorts out plastic waste according to colours and recycles it in order to produce vinyl sheets, buckets and the like while saving colours. Kilju Technical College in North Hamgyong Province completed a technique of manufacturing a furniture board with agricultural by-products as the main raw

materials. Its strength and serviceable life have been confirmed through several rounds of tests.

The Hamhung Disabled Soldiers' Essential Plastic Goods Factory in South Hamgyong Province turns out injection-moulded footwear for students with the plastic waste as material.

Efforts are also being made to apply latest science and technology to recycling.

According to an official of the State Academy of Sciences, systems are now being established to set realistic key national projects related to recycling on an annual basis and carry them out in time.

By Kim Il Jin PT

Recycling gains renewed impetus

“The law on recycling was adopted at the recent Third Session of the 14th Supreme People's Assembly of the DPRK. The key aim of the law is to ensure the sustainable development of the national economy and protect ecological environment,” said Ri Jong Im, department director of the State Planning Commission.

According to her, nationwide steps are being taken to establish a well-regulated system for pushing the recycling efforts according to a national long-term plan.

What is important here is to make the recovery and reproduction form a close link.

To this end, measures are taken to set up standardized facilities in different points at production sites, public places and residential quarters so as to select and collect scrapped materials and domestic waste in kind, and reprocess on a preferential basis the waste that can be found in abundance and requires less investment.

“In particular, we are working to set procurement prices rationally in order to reenergize procurement work

and encourage everyone to voluntarily participate in the work with interest,” said So Jong Nam, section chief of the commission.

Many units in different parts of the country make effective use of the procurement system with decades of history in order to maximize the utilization rate of materials lying idle and increase consumer goods production.

A North Hwanghae provincial official said his province actively conducts mobile, field, consignment and intensive procurement

METAL

Metal industry consolidates production foundations

The Kim Chaek and Hwanghae iron and steel complexes are pressing on with the installation of large oxygen plants.

The former carried out the installation plan of the oxygen separator at 94 percent level as of May 24.

The assembly of steel structures in the separator system and other equipment and the construction of power and automation system are being pushed in a three-dimensional way at the final stage.

After rounding off concrete placing for the installation of separator column, air compressor and oxygen compressor, the latter is now engaged in the concrete tamping of the groundwork for water-cooling tower.

Different projects are carried

on simultaneously, including the assembly of equipment in the separator system and the construction of welfare facilities.

Meanwhile, the Chollima Steel Complex is pushing the reconstruction project for introducing the high-temperature air-combustion technology based on gasification of anthracite.

It has finished the dismantling of old buildings and the construction of a settling pond and carried out concrete placing of the groundwork for the installation of tunnel kiln at over 90 percent level.

It is installing production equipment for the operation of kiln, raw material and gas producer systems in an area of

thousands of square metres.

Other iron, ore, refractory and electrode production units speed up the technical upgrading and partial reconstruction of old equipment while concentrating efforts on rearranging and reinforcing existing production foundations.

Shortly ago, the Kumpho Mine launched into production in the western area.

The mine will reportedly take the lion's share in the supply of iron ore for the Hwanghae Iron and Steel Complex.

The Unnyul and Jaeryong mines are engaged in projects for establishing the power production system based on anthracite gasification.

By Kim Il Jin PT

TEXTILES

Every employee involved in technical innovation

The Phyongsong Daesong Knitwear Factory that increases the variety of products and their output every year has a big competitive edge in the knitwear industrial sector.

"The key to success is the mass technical innovation," said manager Kim Yong Chol.

The factory has put all business activities on an IT basis, meets its needs for electric power and jigs for production by itself and constantly devises and manufactures new products.

Technicians established a solar power supply system for the production and use of necessary electricity and a system for informatizing all production processes to put guidance over each process on a scientific basis.

They also developed and introduced an optimized cutting program and those for each process on the principle of producing small quantities of goods in large varieties.

A knitting machine devised

by repairman O Se Gang can turn out knitted fabric of all textures. A jig of needle worker Choe Myong Sun simplifies the most difficult process in knitted clothes processing to raise productivity by 20 percent.

Over the past three years, the factory's technicians and workers received nearly 100

certificates of inventions and participation in various shows and two of them were registered in the list of national inventions.

Shortly ago, the factory won the title of thrice model technical innovation unit.

By Kim Rye Yong PT



Technicians and workers exchange their opinions on new products at the Phyongsong Daesong Knitwear Factory.

PUMP

Power-free water-wheel pump unveiled

Solving the problem of water is essential in easing energy and food shortage.

Irrigation of crops is arising as a vital issue, given that agricultural production has been tremendously impeded by the unprecedentedly severe drought in recent years.

The Netherlands, Nepal and

other countries have researched and developed water pumps which use no electricity and fuel oil to introduce them.

Hydraulic and water-wheel pumps that are not dependent on electricity and fuel oil were also developed in the DPRK, but they were inefficient due to different problems arising in

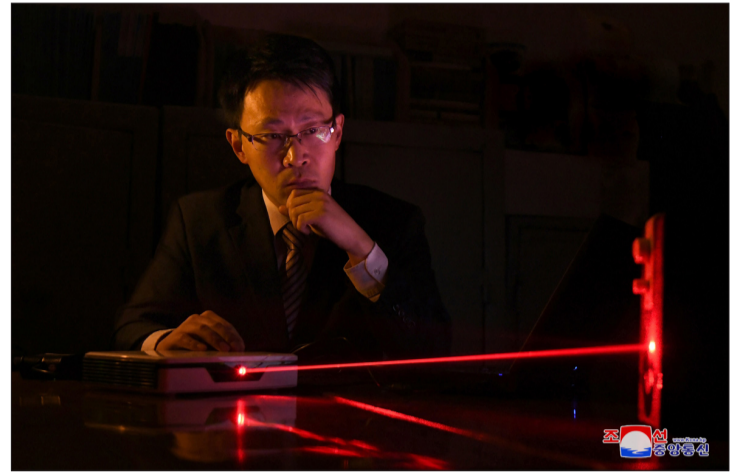
their installation, operation cost and so on.

The Natural Energy Institute of the State Academy of Sciences has recently brought out a water-wheel pump that can pump up water to desired places by using flowing water instead of electricity and fuel oil.

"The water-wheel pump

PROFILE

Opticist rises to fame with research into laser beams



Kim Chol Hyon conducts research into laser at Kim Chaek University of Technology.

"I would like to cordially invite you to become a part of the editorial board for Non-Metallic Material Science, a new international academic journal," said a representative of Bilingual Publishing CO in Singapore in an e-mail sent to Kim Chol Hyon, researcher at the laser lab of the Faculty of Physical Engineering of Kim Chaek University of Technology.

Born in Pyongyang, he graduated from Moranbong Middle School No. 1 and then from the Faculty of Physical Engineering of the university.

At university, he had a special attachment to laser engineering.

He thought that the development of an intensive laser light with favourable properties is of great significance in pioneering a new scientific and technical field and modernizing production processes in several sectors of the national economy.

During his post-graduation course, he presented a new theory on the laser light control technology and won a doctorate for the research hit.

After finishing the course, he became a researcher at the laser lab.

"One of his excellent quality is that once he sets a high aim, he buckles down to research work with perseverance and diligence," said Ri Chol Man,

developed by our research team has a wide application for its simple structure, easy manufacture and zero operation cost," said Jang Kum Ryong, researcher of the Natural Energy Institute.

Generally, water-wheel pump uses a water wheel which runs a device powered by the kinetic energy of running water. It is required to be furnished with a device that can deliver water with pressure and designed to minimize the self-load.

In order to satisfy such requirements, the research team selected a design with spiral water running device.

According to the introduction of the pump into different units including those in Jagang

chief of the lab.

After ten years of efforts, he completed the study paper "Effect of linewidth enhancement factor on fringe in a self-mixing signal and improved estimation of feedback factor in laser diode" and published it in the March 2019 issue of the IEEE Access.

The paper suggested a novel method of estimating in real time the feedback factor which specifies the pattern of the fringe in a self-mixing signal when the optical beam is back-reflected or back-scattered into the laser cavity by a target.

After that, he was invited to the editorial boards of the international academic journals Non-Metallic Material Science and Journal of Computer.

Having worked as an editor for Non-Metallic Material Science since May last year, he reviewed a study paper from SCI international academic journal Applied Optics. His review impressed the editorial staff so deeply that they asked him to continue to work as a reviewer.

This year he published his papers in the Netherlands' Optics Communication and the UK's Measurement Science and Technology.

Now, he is working on a project for introducing the laser precision tracking device.

By Chae Hyang Ok PT



Province, it pumps up two cubic metres of water to the height of 10 metres per hour when the speed of flowing water is 1m/s and proved that it can pump up water to 20 or 30 metres high when the winding number and diameter of hose installed at the water wheel are adjusted.

By Yun Kyong Il PT

ANNIVERSARY

Korean Children's Union: Tradition and future

KCU anniversary celebrated amid nationwide blessing

June 6, the founding anniversary of the Korean Children's Union, is a national holiday in the DPRK.

That day, the three million KCU members swell with great pride and happiness of belonging to the praiseworthy organization.

In the DPRK, the KCU members, who are readying themselves to be future pillars of a prosperous Korea with red neckties flying on their chests, enjoy all kinds of benefits as they are regarded as the joy, pride, hope and future of the country.

The schools where KCU members study are the most conspicuous and excellent buildings in any communities and children's camps are located at scenic spots along with holiday camps for working people. And schoolchildren's palaces and halls across the country are always brimming over with the sound of singing and laughter of KCU members who cultivate their talents to their heart's content.

The KCU members cherish the unusual, happy memories of having celebrated its anniversary

in the presence of Supreme Leader Kim Jong Un.

He attended the 7th and 8th congresses of the KCU held in 2013 and 2017 and extended warm congratulations and blessings on behalf of the people. And he gladly listened to the boastful speeches of KCU delegates from across the country.

The Supreme Leader embraced a delegate from Mangyongdae Revolutionary School descending from the platform and encouraged him in his determination to carry on the lineage of revolution, and gave a big hand before others to a delegate from Kumsong Middle School No. 2 when he pledged to study harder and harder to become a world-famous inventor and scientist who would contribute to the prosperity and development of the country.

Having spent so much time with the KCU members in the meeting hall, he made time yet again to have a photo session with thousands of delegates. Looking up at him on the screen, the members and officials of the KCU from all parts of the

country were overwhelmed by profound gratitude and happiness.

Kim Jong Un, in his address at the 8th KCU Congress, said that when the KCU members grew up cheerfully, staunchly and valiantly as dependable pillars who would shoulder the everlasting future of our country, the inexhaustible strength of Juche Korea would increase to the maximum and the victorious advance of socialism would be accelerated.

The KCU organizations assume an important mission and role in training their members in an excellent way as intended by the Supreme Leader.

I, as an official in charge of organizational life of the KCU members, will devote all my energy to further consolidating KCU organizations and bringing up all the KCU members into the pillars of the country.

Om Kwang Hyok, deputy department director of the Central Committee of the Kimilsungist-Kimjongilist Youth League

Young heroes go down in KCU history

Numerous child heroes go down in the proud history of the Korean Children's Union.

The heroic feats performed by members of the anti-Japanese Children's Corps are cherished even today in the hearts of rising generations as the role model of the KCU.

During the anti-Japanese armed struggle Kim Ki Song dedicated his life at the age of 12 while rescuing the people in the guerrilla zone and Kim Kum Sun died a heroic death at the age of nine to keep the secret of organization.

During the Fatherland Liberation War (1950-1953), KCU members formed children's guards and guerrilla units to defend their beloved native villages.

With fervent patriotism and passionate hatred for aggressors, KCU members fulfilled communications missions, scouted the enemy's movements and killed the enemy by employing adroit and singular methods in the enemy-controlled areas.

Their sacrifices imprint the

weight of the KCU tie and badge in the minds of its members even at present.

Lots of heroic feats on a par with those of grown-ups were also performed among the KCU members in the period of socialist construction.

Nine-year-old Yu Hyang Rim in Taesong District, Pyongyang, sacrificed herself to protect the portraits of President Kim Il Sung and Chairman Kim Jong Il from a sudden fire, and Ri Kum Song, 12-year-old junior-class student at Tongyang Senior Middle School in Jongphyong County, South Hamgyong Province, laid down his life to put down the wildfire in a forest.

Tanks, airplanes, trucks and tractors inscribed with the word Sonyon (children) are associated with the sincerity of KCU members who take pleasure in dedicating themselves to the country.

Hundreds of children won the Kim Il Sung Children Honour Prize and Kim Jong Il Children Honour Prize, the top honours of KCU members, in the 2000s.

By **Ri Sung Ik** PT

Children cultivate patriotic mind while growing trees

There is a forest tended by students of Kwangbogui Chollikil Junior Middle School in Mangyongdae District, Pyongyang.

"Our school's Children's Union forest covers nearly ten hectares. The trees which were planted decades ago have now grown to armful-thick ones to form a forest," said Ra Tac Myong, chief instructor of the school Children's Union committee.

The national tree of pine takes a large proportion in the forest and dozens of species of trees including thuja, pine-nut tree and *Aronia melanocarpa* grow there in a balanced manner.

The school has a tree nursery for the forest.

When saplings grown there are "moved" into the forest, seniors help juniors plant trees and some parents make time to help their children.

"I'm proud of my son, who seemed to have been pampered, when he takes an active part in tree planting. Seeing him running to the forest in early morning, I come to know that his mind is also growing along with the trees," said Han Ryon Hui, mother of second-year

student Kim Chol Song.

The school conducts the activity of love-the-home-village guards once a week to inform students of knowledge of tree planting and growing, prop up trees or prevent harmful insects.

Laudable deeds students perform while taking care of the forest are given wide publicity to so that many try to learn after them.

"Our teacher said that to plant and grow trees is also patriotism.

He always teaches us that now we strive to look after the Children's Union forest, and will work to do good things for the country in the future," said Jang Yun Jong, a third-year student.

This year, over 2 000 trees took their roots in the forest.

Students broaden their knowledge of plants and spend a good time of rest while breathing fresh air in the forest associated with their efforts.

By **Kwon Hyo Song** PT



KIM YONG CHAN

Students from Kwangbogui Chollikil Junior Middle School in Mangyongdae District, Pyongyang, plant trees on the occasion of the anniversary of the Korean Children's Union (June 6).

Dreams pursued, hopes growing

Children in the DPRK cultivate talents at schoolchildren's palaces and halls and juvenile sports schools as well as all other schools.

The Mangyongdae Schoolchildren's Palace covering an area of tens of thousands of square metres has more than 140 rooms of various hobby groups where members acquire knowledge and skills.

They flaunt their artistic talents at the annual New Year performance of schoolchildren.

President Kim Il Sung and Chairman Kim Jong Il were very pleased to see their performances in their lifetime and Supreme Leader Kim Jong Un saw their rehearsal on his visit to the palace some years ago.

Many of its hobby group members grew up to be renowned artists.

Students attending juvenile sports schools in Moranbong District and of the Kigwancha Sports Club lead others across the country in judo, weightlifting and some ball games.

Among students of Juvenile Sports School in Moranbong District which has retained the championship in handball, table-tennis, judo and badminton at

home, there are also winners of international games.

Among the graduates from the school are Kye Sun Hui, Olympic gold medallist and four-time world judo champion, and An Kum Ae, Labour Hero and Merited Athlete. Students cherish high hopes of winning international games as they think of them.

In January this year, a government measure was taken to prolong the vacation. According to an official of the Education Commission, it was aimed at giving students enough time and opportunity to freely conduct extracurricular activities according to their aptitudes and talents.

Accordingly, the number of hobby groups saw a sharp increase at all schools.

For example, Ponghak Primary School in Phyongchon District, Pyongyang, additionally set up over 40 groups.

National festival, exhibition and presentation of schoolchildren in various fields including science, the arts and sports provide students with an opportunity to give full play to their talents.

By **Pang Un Ju** PT

PARK

Flower park flourishes to the delight of visitors

Sungni Flower Park No. 1 in the entrance to Thongil Street, the southern gateway to Pyongyang, is one of the flower parks drawing many people.

“Our flower park is one of the objects local people see first along with the Monument to the Three Charters for National Reunification as they enter Pyongyang. So we, keepers, tend every flower bed and flowering plant with sincerity,” said Ri Ran Hui, keeper of the flower park.

The flower park covers an area of over 3 000 square metres and granite-framed large flower beds are arranged in a circular way.

Growing now in the flower beds are such flowers as French marigold, morning glory and pansy after spring flowers withered, sending out sweet smells while boasting their beauty.

On the other hand, Canna

and gladiolus which will open their buds after a month are growing healthily in the central flower bed and fountain-shaped illuminations add beauty to the scenery in the evening.

Benches are arranged in good order between flower beds to offer convenience to visitors.

This year, the keepers transplanted osmund of ornamental value, which can only be found in deep mountains, to flower beds.

In the outside of the flowerbed area paved with granite blocks, a dozen species of flowering shrubs, scores of tree species of great ornamental value including pine, maple and quince trees and such fruit trees as apple, plum and jujube are growing in different shapes on a lawn to receive people with pleasure.

When big and white blossoms blooming on the branches of the national flower of magnolia

represent the feeling of purity and integrity of the Korean nation, *Cornus coreana* Wang and *Weigela subsessilis* Bail with beautiful flowers effusing distinctive fragrance and roses of different sizes and colours afford a glimpse into the beautiful world of flowers.

Moss phlox, a flowering and ground-covering plant, provides infants strolling with their parents with soft carpet.

Everyone can command a panoramic view of the flower park as trees and flowers create a complete harmony with each other and ornamental sculptures and illuminations enhance the beauty of scenery. The park not only serves as an excellent resting place for the residents in surrounding areas, but also remains as part of unforgettable memories of Pyongyang for those from local areas.

By Kim Kum Myong PT

EATERY

Diners relish the delicacy of Taedonggang grey mullet soup

Recently I visited the Pyongyang Grey Mullet Soup House which is noted for the soup prepared with the fish from the Taedong River.

The house is located on the banks of the river, crowned with gabled roofs and supported by several pillars. When viewed from afar, it looks as if the building stands with its feet planted in the river.

The eatery serves a variety of dishes made with grey mullet such as the fish soup boiled with cold water, peppery soup and fry.

“Grey mullet has been called an appetizing and roborant food since olden times,” said the manager of the restaurant. “As the fish contains a good deal of fat, vitamins and minerals as well as proteins rich in essential amino acids, it helps enhance digestive functions, strengthen five viscera, invigorate the body, build up muscles and bones and improve eyesight. It is also good for health at the time of loss of appetite and anaemia and after suffering from chronic gastritis and night blindness.”

She proceeded to tell me about the history of Taedonggang grey mullet soup.

The soup has long been counted as one of the four excellent foods of Pyongyang. According to history books, grey mullet inhabits the Taedong River, the frozen fish is tastiest and the fish of Pyongyang is the most famous among those in the eight provinces of the country.

The fish is often found offshore

or in the less salty river estuaries. It lives in different areas of the country and especially the one inhabiting the Taedong River in Pyongyang has been considered a speciality.

As the soup was so well known that visitors to Pyongyang from other areas believed they were given warm hospitality only when they were served it and, back home, they would proudly tell their villagers about its taste. “Did the grey mullet soup taste good?” was a conventional address to those who returned from their Pyongyang visit.

As I chatted with cooks, I also learned how to prepare the soup.

According to the chef, the Taedonggang grey mullet soup was originally made with the fish from the river by boiling it in the clear river water, and what is distinctive is that it is

boiled in cold water.

The chef removed the scales from the fish, cleaned it, cut it into pieces of an appropriate size and put them into cold water along with pepper corn wrapped in a piece of gauze, before boiling them. Then the soup gave off a delectable smell.

According to the chief cook, the soup is served with cooked rice, kimchi and seasoning made with smashed garlic and ginger and a stone pot is better than an iron one when boiling in order to keep the original flavour of the soup.

“It is really delightful to savour tasty dishes made with grey mullet from the Taedong River,” said Choe Nam Chol living in Rangnang District, Pyongyang.

By Kim Rye Yong PT



People dine at the Pyongyang Grey Mullet Soup House to enjoy one of the specialities of Pyongyang.

BOOK

Bookstores draw many with new books



RYANG KUM CHOL

Visitors flip through new books at the Ryonghung Bookshop in Pyongyang.

Many people visit bookshops to buy books on intelligence development and common knowledge and the number of visitors is increasing these days.

According to Kim Yong Sim, an attendant at the Pipha reading room of Moranbong District, Pyongyang, book “Knacks of Invention Acquired through Anecdotes” is so compiled to help readers get the knacks of drawing surprising and novel ideas from ordinary yet interesting life that it has become a favourite for “master inventors”. Books “Secret of Memory Everyone Can Learn”, “A Guide to Enhancing Solving Capacity” and “Unique Knacks of Calculation Good for Brain Training” are winning growing popularity among primary and middle school students as well as their parents, she said.

Book “Competition Age” (Vols 1 and 2) is in the DPRK bestseller list at present as it helps readers see through the present era which has seen constant progress and development in unremitting competition, said Kim Tae Il, student at Kim Chaek University of Technology. “The

competition will produce better results when it is oriented to the benefits of the whole society and stimulates all of its members to adopt a viewpoint of helping each other to this end.”

These books attract more buyers as they are also available on computers and mobile phones.

But still there are many people who want to buy traditional printed books, especially those who have poor eyesight or are under heavy stress due to the electromagnetic waves, said Kim Yong Sim.

According to recent research data, if children under 12 years of age read books or play games on computer or mobile phone for over 10 minutes every day, the probability of their having a trouble in eyesight like myopia or developing autism, hypochondria and other mental disorders is high.

It is probably for this reason that packs of mental calculation cards are drawing particular interest of the customers as they are decorated with pictures that children like.

By Ri Myong Jun PT

National instruments improved in compass, volume

Researchers of Pyongyang Kim Won Gyun University of Music have remarkably improved the compass and volume of national musical instruments.

“Previous musical instrument making methods are insufficient to make clear and beautiful tone and rich volume. We’ve renewed each production process by adopting advanced science and technology,” said Kim Jo Hyok, head of the musical instrument manufacturing institute.

The researchers scientifically fixed the thickness distribution of soundboard of small-sized haegum (Korean fiddle) in order to maximize the resonance of soundboard.

And they made the most of

the characteristics of birch and bamboo, so that tone quality could be represented well in performance, and fixed the length of pipe, the distance between sound holes and their sizes on a scientific basis to eliminate previous drawbacks.

Instrumentalists said that the national instruments made by them have rich sound volume, clear and soft sound and accurate tone.

Kayagum and flute making techniques which were completed by the university have been inscribed as national intangible cultural heritage elements.

By Yun Ki Song PT

COMMENT

Japan advised to remember bitter lesson of aggression

Recently, a photo showing the Japanese defence minister's office with a map of Korea and the "flag of rising sun" pinned on a wall side by side was made public.

Experts and media outlets commented that this shows Japan is paying "special attention" to the Korean peninsula.

Japan has increased its military capability to the largest next to the US in the West, while playing up the theory of "threat from north Korea".

It is a widely known fact that Japan, which is forbidden to have a regular army to say nothing of the rights of belligerency, has already become one of the five most powerful military entities in the world.

The publication of the photo of the office scene is just the revelation of Japan's thirst for

occupying Korea.

When this gave rise to much controversy, an official of the defence ministry appeared before the public to make such a poor excuse that the map of the Korean peninsula had been hung on the wall for a long time and it is one of many maps in the room and has no special meaning.

However, this explanation has aroused more doubts.

His remarks at face value mean that there are many other maps constantly hung on the defence minister's office. Without doubt the maps in the high-ranking military official's room are not wall decorations or trinkets.

The recent case served as an occasion for the neighbouring countries to be more vigilant about Japan.

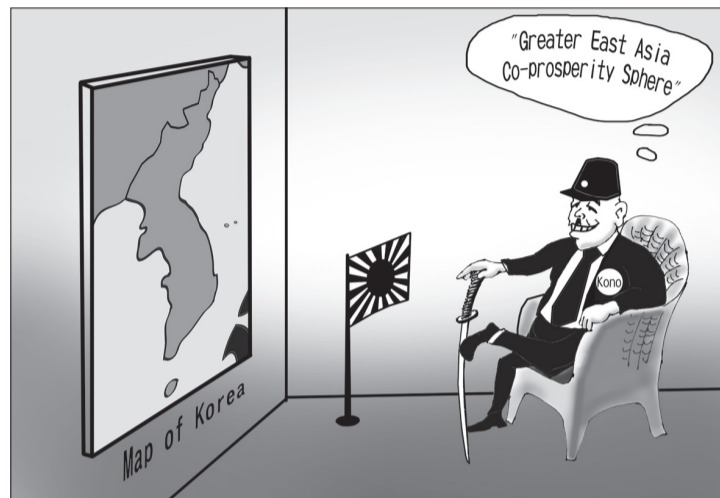
Having once provoked a war

of aggression dreaming the pipedream of the "Greater East Asia Co-prosperity Sphere", a phantasy of "liberating" Asian countries from Western powers, Japan has not yet given up the wild dream of the militarist era and is watching for a chance of

reinvansion.

The time has changed and Korea is not the one it used to be. Japan had better try not to forget the lesson from its past aggression.

By Choe Yong Nam PT



ENVIRONMENT

Biodiversity and human life

June 5 is the Day of World Environment.

The UN General Assembly in October 1972 set environmental protection as the common task of humankind and decided to mark June 5 as the Day of World Environment as part of the efforts to promote international cooperation in this field.

The theme for this year's Day of World Environment is "Biodiversity".

The theme has been chosen because it has emerged as a more important thing than ever before to focus on the conservation of biodiversity as a million species of plants and animals are on the verge of extinction at present.

Humans get almost all they need for their living including food, medicine, daily necessities and energy from diverse biological resources.

Beautiful scenery and diverse ecosystem help enrich the

cultural and emotional life of people and they are also unthinkable apart from rich biodiversity.

Diverse ecosystem like forest, sea and wetland plays an important part in keeping the ecological balance of the global environment by protecting the soil, purifying water, adjusting climate and ensuring the circulation of carbon and nitrogen.

Today biological species on the earth are dwindling rapidly due to reckless deforestation and destruction of forests, pollution by industrial wastes and damaged ecological environment by global warming.

According to data available, nearly a million animal and plant species may disappear from the earth in the coming 10 years or so.

Over the past 50 years wild life has diminished by over 60 percent on average, which shows

that biological species become extinct from dozens of times to hundreds of times faster than the average speed in the period of the past ten million years.

As biological species can never revive, once vanished, it constitutes a serious loss of resources. It will undermine stability of the overall ecosystem and subsequently have an adverse impact on the environment for human existence.

For this reason, the DPRK government has directed a lot of energies to environmental protection.

As laws related to the environmental protection sector were adopted, a regular system has been established to carry out the country's environmental protection on a nationwide scale in a unified way.

Laws on the protection of animal and plant resources were also enacted including those on

the protection of useful animals and marine resources and nature reserve, providing a legal guarantee for the protection of biodiversity.

In recent years environmental observation posts have been set up across the country to automatically measure the concentration of sulphurous acid gas in the atmosphere in real time and research projects are under way to develop agents to remove gas and dust from industrial furnaces and boilers and reduce the exhaust from vehicles. Research into the purification of industrial waste water and recycling of wastes has also been intensified.

The DPRK joined the World Conservation Union in 1963 and has been active as a full member of the convention on biodiversity since 1994.

The international community needs to pay due attention to the protection of biological species.

Kim Un Ha, researcher at the Central Committee of the DPRK Nature Conservation Union

SPACE EXPLORATION

Vigorous pursuit of space programmes around the world

Different countries make hefty investments in space exploration.

Russia presses on with new space programmes. According to the chief of the state-run Roskosmos company, there will be 18 rounds of launches at the Baikonur Cosmodrome in 2020. The country plans to carry out over 40 launches of space rockets this year.

A carrier rocket with space freighter aboard blasted off on April 25 on the occasion of the 75th anniversary of its victory in the Great Patriotic War, and a static test of a new type of digital transmission and reception TV system was recently carried out for communications with the International Space Station.

China put the 54th navigation satellite of Beitou series into space at

the Xichang satellite launch centre in March, and launched a carrier rocket designed to implement the third-stage development strategy in the manned space flight process at Wenchang spaceport to send a spacecraft into a preset orbit in May.

Xinhua reported that the recent launch has laid an important foundation for the building of a space station in the orbit.

Global space competition is heating up as developing countries thrust themselves into space exploration.

Algeria has recently manufactured a communications satellite in the wake of putting several probes into orbit.

And Iran also succeeded in inserting a homemade military satellite into orbit.

Space exploration also takes place in the United Arab Emirates and other countries.

Experts assert that the prospect of world economic development hinges on how to exploit outer space.

By Min Chol PT

Briefly

Russia

V-E Day military parades to be staged

The Russian government decided to stage military parades and fireworks displays on June 24 and declared the day as a holiday.

President Putin signed the relevant decree on May 29.

Iran

Any negotiation with US dubbed pointless

The speaker of the Iranian national assembly said in the parliamentary session on May 31 that the newly-formed parliament regards it as pointless to negotiate or compromise with the US.

He stressed that Iran's strategy to cope with the American terrorism would lead to completely driving the US terrorist forces out of the region.

Syria

EU's decision branded as support to terrorists

"The EU's decision to extend sanctions one year more clearly shows again that they support terrorist organizations in Syria," said the Syrian Ministry of Foreign Affairs and Expatriates in a statement on May 28.

The statement said that the EU's unjust sanctions measures are having direct negative effects on the Syrian people's living and anti-epidemic work.

AU

CAU chief condemns racial discrimination in US

The chairman of the Commission of the African Union issued a statement on May 29 to decry racial discrimination in the US.

Referring to the fact that a white cop pressed down on the neck of a coloured man with his knee to kill him in Minnesota on May 25, the statement said the US is rife with discrimination against black people.

He asserted that all manner of segregation based on race and religion should be rooted out.

Palestine

Israel censured for killing innocent Palestinians

An Israeli policeman reportedly shot an innocent, disabled Palestinian to death in East al-Quds on May 30.

That day the National Liberation Movement of Palestine issued an official statement to strongly denounce the murder by the Israeli police and call on the International Criminal Court to bring the criminal to justice.

Earlier on May 29, Israeli troops shot a Palestinian to death in Ramallah in the West Bank.

THE PYONGYANG TIMES

FOOTBALL

National women's football team promising

Saying DPRK women's football teams were formidable at international games, the AFC recently commented as follows:

The DPRK men's soccer team was the first Asian team that made a name for itself in World Cup. Pak Tu Ik and other Korean heroes astonished the world in 1966, and Korean women dominated the football world in the 2000s and 2010s.

This was illustrated by the fact that Korean female teams won World Cup and Asian championships four times

respectively in two age groups.

It was sensational that the Korean team overpowered the Chinese opponent 5-0 in the 2006 U20 Women's World Cup final and it was phenomenal that the Koreans beat the Americans in the 2008 U17 Women's World Cup.

Especially, the DPRK women were at their best between 2015 and 2017.

They won the AFC U16 Women's Championship in 2015 and lifted trophies both at the FIFA U17 and U20 women's

World Cup tournaments in 2016. No country has achieved such stunning success in a year yet.

And the newly formed Korean team won the 2017 AFC U16 Women's Championship.

Noting that players of those days form the backbone of the DPRK team at present, AFC added that the 2022 AFC Women's Asian Cup and the Women's World Cup in 2023 will be a good chance for them to demonstrate their power.

KCNA

ICH

Mask dance part of Korea's cultural heritage

Among the rich cultural heritage created by the Korean nation is mask dance, a kind of lively and vibrant folk dance.

Mask dance is believed to have derived from everyday hunting by primitives. In those days, they wore the skins of animals and imitated them as they did the hunting dance.

The Korean mask dance evolved from the primitive hunting dance and the martial dance reflecting the joy of victory in wars and took on certain artistic features in the period of the Three Kingdoms that existed between 3rd century BC and AD 7th century in Korean history. Afterwards, the mask dance developed into a variety of mask dance dramas as it combined with a popular drama form, regular annual events and folk games of local areas.

Typical mask dances that have been transferred to date are those of the Hwanghae provincial region, notably the Haeju mask dance satirizing the exploiting classes, that of the Kangnyong area popular for outstanding artistic skills and the famous Pongsan mask dance. There is also the lion mask dance of the

Pukchong area in the Hamgyong provincial region representing the valiant mettle of lions.

These mask dances of the Hwanghae provincial region are consistent with derision and satire on corrupt and incompetent noblemen and monks in feudal ages who led a dissipated life.

Among them, the Haeju mask dance is known as the most astringent in sarcasm on the noble ruling circles.

It is comparatively simple in composition and its movements are those that can be seen in everyday life. Especially, the dancers use *hansam*, a kind of extension of the sleeves in the shape of sleevelets that cover up hands. They raise their arms above their heads and swing them widely in a stately and vigorous manner.

Its major movements were already discovered and classified to be widely used in the education and creation of dances.

The Kangnyong mask dance has enjoyed special favour of the people for the remarkable artistic skills and distinctive artistic representation.

The most famous mask dance of Hwanghae is the Pongsan

mask dance.

The dance, which developed centring on the Pongsan area of North Hwanghae Province, consists of various means and methods of representation such as songs, instrumental music, dances, dialogues, pantomime, masks, costumes and props.

It made a rapid development in the 18th century as it represented in a unique style the satire and derision on monks and rulers in feudal society, progressive standpoint and attitude of the people toward contradictions in contemporary society and their aspirations and demand for the new.

However, the Japanese imperialists who militarily occupied Korea early in the 20th century banned the performance of the dance in 1937.

Chairman Kim Jong Il on his visit to Unjong-ri of Pongsan County, North Hwanghae Province, in June 2003 saw the Pongsan mask dance performed by farmers and gave an instruction on encouraging it.

Today, the local farmers stage the dance on holidays and other occasions and teach it to their children.

By Song Jong Ho PT



A scene from the Pongsan mask dance performed by farmers. PAK KWANG HUN

PLANT

Magnolia, national flower of DPRK

Well over a hundred countries on the earth have their own national flowers.

National flowers generally include indigenous plants of relevant countries, plants of economic value or those derived from legends or life customs that have been passed on through a long course

of history. They are closely associated with the climate and culture of relevant countries and life customs of people.

Magnolia is the national flower of the DPRK.

A deciduous broadleaf tree belonging to the Magnoliaceae family, it is the native species of Korea.

It was called peony tree or tree lotus.

It was not extinct even during the ice age which swept the world in the Palaeogene period of the Cenozoic era, but grew naturally with the Korean peninsula as its home. According to botanists, magnolia was discovered in different relics including the Komunmoru relics from the Palaeolithic age and grows in almost all parts of Korea except some regions in the northern alpine area.

The national flower has specially been loved by the Korean people for its high cold resistance, great vitality and beautiful flower.

Introduced in *Yanghwasorok*, the oldest horticultural book in Korea, are ecological features of various beautiful flowers and



their cultivation techniques and magnolia is listed in the book as one of the specially beautiful flowers.

It grows 2-5 metres high and several main stalks usually grow from a root neck to form a clump of magnolia and single stalk rarely comes out.

Around May and June, fragrant white flowers blossom slightly bent down or sideways at the edge of fresh branches. The blossoms come out between late May and mid-June with each flower remaining open for about a week.

Sinjungdonggukyoji-sungnam, a book published in 1560, says that tree lotus flowers blossom in summer along with thick green foliage, sending out strong sweet fragrance.

A single species, it remains unchanged in the shape, size and colour of flower even if it is planted in any regions.

Magnolia flowers are used as a raw material for expensive perfumes and the leaves are picked before frost falls and dried in the shade to be used for the treatment of hypertension and dizziness.

By Min Chol PT

HEALTH FOOD

Pheasant soup

The Korean people have long cooked a variety of foods with pheasant including noodles garnished with pheasant meat, steamed and roast pheasant, pheasant meat boiled in water and dumpling.

Among them pheasant soup was noted as a health food for its high nutritive value and considered to be especially good for improving the health of frail people.

According to data available, pheasant soup tastes very

strong and is higher in pharmacological effect than other dishes as nutritive substances are fully preserved in the soup during its preparation.

By Choe Yong Nam PT

