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Bronze Flower Vase

**A gift to President Kim Il Sung from Mohamed Hosni Mubarak,
President of the Arab Republic of Egypt (September 1988)**



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National and public campaigns are going on in Korea to protect rich water resources and make an effective use of them.



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Front Cover: Production goes up at the Taesongsan Mineral Water Factory

Photo by Ri Song Ik



Back Cover: Pibong Falls in Mt Kumgang

Photo by An Kang Rim

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With Due Attention

NOT LONG AGO A KOREA TODAY reporter had a talk with bureau director Ri Kyong Sim of the Ministry of Land and Environment Protection about Korea's protection and effective use of its water resources. Excerpts:

In order to make effective use of water resources, priority should be given to their protection, I think.

My country is one of those rich in water resources. It has thousands of rivers and streams and lakes and reservoirs, and plenty of precipitation. The water resources per unit area (1 km²) number 615 000 m³, nearly twice the world's average (315 000 m³).

Such plenty of water resources, however, will run dry unless they are managed properly.

My country already adopted the DPRK Law on Water Resources in 1997, the DPRK Law on Prevention of Marine Pollution in 1997 and the DPRK Law on Rivers in 2002. It amends and supplements the laws in keeping with the present time. The Law on Water Resources, for example, was amended in 1999. Not a few of its total 37 articles are dedicated to protection of water resources.

Protection of water resources is a national and public concern at the moment. Rational development plans have been drawn in full consideration of the amounts of and changes in local water resources, their local distribution and the demands of different sectors of the national economy for water, and all possible efforts are directed to protection of water resources.

In addition, diking, dredging and afforestation for erosion control are done simultaneously, and a mass and national drive is under way to manage rivers and streams. And with periods of nationwide general mobilization for land administration fixed, all the people engage in improvement of rivers and streams and so on to protect water resources in spring and autumn every year.

I want to know about what is important in making effective use of water resources.

The relationship between relevant units is important in making effective use of water resources.



Ri Kyong Sim, bureau director of the Ministry of Land and Environment Protection.

The country has a non-permanent committee for environmental protection which coordinates cooperative relations between water resources-using units, scientific institutes and supervision and control agencies.

Different sectors of the national economy are striving to make rational use of water resources: Across the country there have been built reservoirs, pumping stations, intake works, waterways, barges, power plants and other kinds of water facilities so that protection of water resources is done on a technical basis.

Hydropower stations are making the most of water. In recent years 12 power stations have been built in tiers down the Chongchon River, thus generating electricity. Fish-ways were set in the power stations, so the sweetfish's spawning beds are in good condition. And there have been established fish farms, wading pools and boating grounds that make an active contribution to the recreational activities of people.

The 150-odd-km-long Kaechon-Lake Thaesong Waterway was built as the first of its kind. It is an example of a large-scale gravitational irrigation system in our country followed by the completion of the Paengma-Cholsan and Miru Plain waterways, making it possible to make effective use of water for grain production.

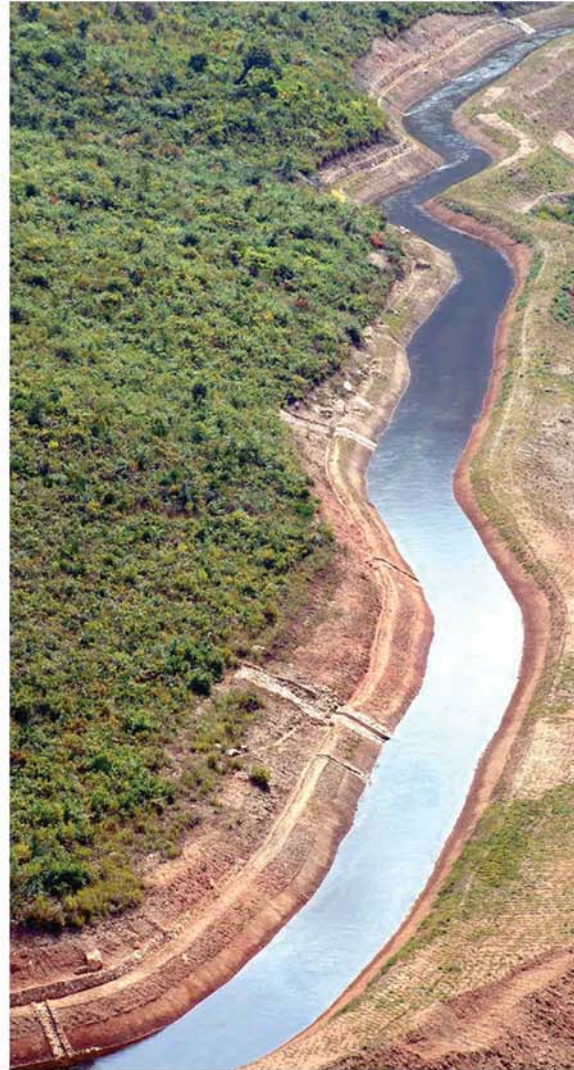
And much attention is paid to protection of water resources. Industrially-used water is recycled or ►



Reservoirs, waterways, power stations and other projects are carried out to protect water resources and make an effective use of them.

► used in a stage-by-stage way from processes that require that of high purity to those that require that of lower purity as required by different processes. Besides, air is used for cooling, and product-washing devices and methods are improved in order to save water for industrial use. And a filter film-based biological reaction technology is introduced in dealing with sewage and waste water so as to establish a water-recycling system.

Seminars are held in commemoration of World Water Day.



Rural communities clean waterways and tamp clay on the waterway surface so as to keep water from being wasted.

The scientific research sector is studying sci-tech problems arising in protecting and making rational use of water resources. Emphasis is placed on the research to refine water at the least cost. Attention is also paid to the task of using no or less power to purify water.

Every year my ministry gives a short course on protection of water resources in which good experience is exchanged.

We also conduct exchange and cooperation with our counterparts of other countries.

We'll keep making every effort to protect and make effective use of water resources. □

Minor Power Stations on the Increase

KOREA HAS MANY mountains and large and small rivers, so it has rich water resources. The State has set up a line of constructing medium- and small-sized hydropower stations on a large scale all over the country in accordance with the favourable physiographical conditions of the country, and is putting in efforts to implement the line.

As the construction of such hydropower stations can be done in a short span of time with less materials, fund and labour, it has been an economical and rational method of solving the problem of electricity. A mass movement has been under way to build similar stations wherever there is water flowing—on rivers and streams, irrigation canals and barrages—or by using the water from large-sized power stations.

Jagang Province is a good example. In the mid-1990s the country was faced with a difficult period, that is, the Arduous March, owing to the imperialists' moves of isolation and suffocation and their economic sanctions against it. Solving the power problem became a matter of urgency. At this juncture, the workers of the province made generating equipment by themselves, and built medium- and small-sized hydropower stations throughout the province: Pukchon float-type power station, Janggang power stations Nos. 1 and 2, and Jangjasan power station.

The province built on large and small rivers many medium and small hydropower stations of different kinds with high economic effectiveness, thus producing enough power to be used

for heating of houses and the local people's life.

It sparked off a nationwide campaign to learn from the experience of the province. And different kinds of medium- and small-sized hydropower stations suited to the characteristics of specific areas appeared all over the country. Thanks to the construction of power stations, artificial lakes came into being, adding to the local scenery, local factories became able to run at full capacity, and the electrification of rural dwelling houses has been realized on a high level.

The construction of such power stations is now under way on a nationwide scale, and Jagang Province still takes the lead in the undertaking. The province has built a hundred and scores of power stations including Hungju youth power

stations Nos. 1, 2 and 3, Manpho Yonha Power Station and Hui-chon Power Station No. 3.

Kangwon and other provinces are benefiting from the medium- and small-sized hydropower stations they have built.

Last year, Ryesonggang Youth Power Station No. 5 and Orangchon Power Station No. 5 went up in North Hwanghae Province and North Hamgyong Province respectively. This year, too, the construction of such kinds of power stations is ongoing everywhere across the country.

The Medium- and Small-sized Hydropower Station Management Bureau in each province is now striving to ensure the construction and most effective use of the power stations so as to benefit from them.

Kim Il Bong

Minor hydroelectric power plants are set up to contribute to power generation.





Taedong River Changes

THE TAEDONG RIVER, which flows through the capital city of Pyongyang, is one of the five longest rivers in Korea.

As an area of high forest accumulation, the Taedong River basin is covered with a lot of needle-leaved and broad-leaved trees like pine trees and oak trees.

According to Song Chol Gil, a section head of the Zoological Institute, who has been studying the ecological system of the Taedong River for a long time, the transformation of the river basin is bringing about changes in the ecological system.

Originally there were some 60 kinds of fishes in the river, and now they are increasing year by year. This provides migratory birds with a sufficient feed condition, and thus lots of migratory birds fly to build their nests in the area.

Among the birds are mallards. Over 20 kinds of

mallards come round in flocks to inhabit the river from early September to early April next year.

In spring and autumn every year, the country undertakes projects for improving river conditions and planting trees. The projects include afforestation for erosion control. With the new appearance of the Taedong year by year, the ecological system of the place is getting better and better.

“I’m sure that the migratory birds on the verge of extinction around the world will come to the Taedong in a few years along with the improvement of its ecological system. We are now conducting the relevant research,” Song says.

Thanks to the laws such as the DPRK Law on Water Resources (1997), the Law on Prevention of the Taedong River Pollution and the Law on Rivers adopted by the State, a legal guarantee has been laid to maintain the diversity of the

river’s ecological system.

The scientific research is under way to protect the ecological environment of the Taedong. The researchers of the Environmental Sci-tech Research Institute, Ministry of Land and Environment Protection, are engrossed in solving the relevant problems, including the research on the technology of purifying industrial waste water and depurative materials, the research on improvement of biodiversity, management of nature reserves and the recycling of wastes, and the authentication of the system of improving the environmental management of factories and enterprises. This makes the river clear all the time.

Toward sunset, there can be seen people who are enjoying themselves aboard the general-service ship *Mujigae* while watching the mallards flying about in flocks.

Kim Il Ryong



Popular Taesongsan Mineral Water



MT TAESONG HAS BEEN LONG regarded as one of the eight beauty spots in Pyongyang for its beautiful landscape.

The mountain is covered with green pine forests all the year round and alive with all sorts of flowers season after season, hence the scenery was called *Ryongsanmanchwi*. It was also famous for its good water. It can be seen through the fact that the royal palace of Koguryo (277 BC-AD 668), the first feudal

state in Korea, was situated in the area from 427 to 586.

According to the State's people-oriented policies, the Taesongsan Mineral Water Factory was built in the area of Mt Taesong in May last. With a capacity of ten thousand litres a day, it is now producing bottled mineral water (0.5L) and barrelled mineral water (18.9L).

The mineral water from the factory is supplied to department stores and shops in Pyongyang, and it is very popular among the citizens for its good taste and quality.

As tectonics of the area is characterized by Archaean granites and thick muddy layer, the mineral water from the area is good in taste and quality for people's health.

Jon Pong Su, 56, who lives in Neighbourhood Unit No. 72, Wasan-dong, Sosong District, Pyongyang, says, "The Taesongsan Mineral Water is very good in taste and quality. Previously, I drank different kinds of famous mineral water like the Sindok Mineral Water and Ryongaksan Mineral Water. ▶

▶ Now I've been drinking the Taesongsan Mineral Water for four months, and it has become my favourite drinking water."

It is said that the Taesongsan Mineral Water contains plenty of different minerals and microelements needed for pharmacological action. In particular, it contains a large amount of calcium (49.2mg/L), magnesium (11.64mg/L) and acid sodium ion, which have a special virtue for curing digestive disorders such as chronic gastritis and chronic colitis and cardiovascular diseases.

Hyon Myong Hwan, 71, who lives in Neighbourhood Unit No. 82, Unha-dong, Ryongsong District, Pyongyang, says, "For over ten years, I took medicines for reducing blood pressure every day because my blood pressure would rise up to 180. But over 30 days after I began to drink the Taesongsan Mineral Water, my blood pressure became normal, and my wife (66) also got rid of her chronic colitis after drinking it."

Sin Chun Bok, general manager of the factory, says, "The Korean people have long regarded good health as one of five blessings. In the future, too, we'll regularly supply the mineral water to Pyongyang citizens, thus making a contribution to the improvement of their health."

At present its popularity is increasing day by day.

Choe Sol Mi



Life Spent with Water

THE MATTER OF PRO-
tecting and making effective
use of water resources is a seri-
ous one related to the destiny of
humankind.

Korea has paid a deep atten-
tion to this work, thus it is bring-
ing about a great development in
the aspect.

Dr. Ri Mun Hyok, 76, re-
searcher at the water environ-
ment laboratory of the Envi-
ronmental Sci-tech Research
Institute under the Ministry of
Land and Environment Protec-
tion, has been engaged in this
field for over 50 years, making a
great contribution to the protec-
tion and effective use of water
resources.

He also examined and ana-
lysed the water quality of the
main rivers, including the Tu-
man, Amnok and Chongchon,
and reservoirs in the country,
and invented and introduced sig-
nificant things that help make
rational and comprehensive use
of water, making a great contri-
bution to the environmental pro-
tection of rivers and streams and
coasts.

One year, while looking

around some workshops of a
complex, he noticed oil resi-
due mixed in the water from
an outlet of waste water. The
water was flowing into a river
without being completely puri-
fied. At that time the complex
was content with the maximum
permissible limit of water pol-
lution. Though busy on his way,
he couldn't leave the matter
alone.

Together with workers and
technicians of a complex, he
spent several days manufactur-
ing and installing new facilities
capable of purifying the polluted
water at 100%. In addition, he
invented and introduced appro-
priate methods of purifying sew-
age and waste water in many
factories including foodstuff and
chemical factories and enter-
prises, so that only clear water
can always flow into rivers and
streams.

It happened when there
arose a problem in preventing
the environmental pollution of a
river. Through a detailed exami-
nation of the river, he found out
that the amount of reservoir wa-
ter in the vicinity decreased due

to a climatic change and the ex-
changing of water was not done
properly. He invented and intro-
duced a method of exchanging
water by pumping up clean wa-
ter of the Taedong River through
the Mirim Barrage, thus making
it possible to prevent the water
pollution of the river.

In recent years, too, he ob-
served, examined and analysed
the water of the whole Taedong
River in every May and June
in keeping with the climatic
change, and solved knotty prob-
lems to make clean water flow
in the river. And after observing
the changes of its water quali-
ty, fishes and microorganisms,
he developed and introduced a
method of protecting its ecologi-
cal system.

He is now writing papers
based on his experience and
research achievements. In his
paper *Research on the Envi-
ronmental Estimation of the
Water Area at the West Sea
Barrage and Steps for Compre-
hensive Coastal Management*,
he described in detail the fact
that the ecosystem of the bar-
rage area has been changing
for years since the barrage was
built in the Taedong River, how
to deal with polluted materials
from land, sea and ships and the
steps for different units to man-
age the coast.

And the *Environmental Dic-
tionary* he wrote and his essay
*Natural Environment and Our
Life* are highly appreciated for
their describing what are signifi-
cant in protecting the water en-
vironment in the country.

Like this, he has devoted all
his life to provide a clean water
environment. Despite his ad-
vanced age, he is still devoting
the rest of his life to the work
full of vigour.

Sim Yong Jin

Eternal President of DPRK

Kim Il Sung was the founding father and leader of the Democratic People's Republic of Korea. Holding him in high respect as eternal President of their Republic the Korean people remember his exploits generation after generation. The *Korea Today* editorial board introduces some of the many anecdotes about the personality of the President who devoted all his life to the effort to develop the DPRK.

Servants of the people

IN LATE FEBRUARY 1947
Kim Il Sung, leader of the
new Korea, established the Peo-
ple's Committee of North Korea,
the supreme executive organ of
the people's government of north
Korea.

That evening, a banquet was
given in honour of the partici-
pants in the meeting. While it
was proceeding in an amicable
atmosphere, the chairman of the
Central Committee of the Peas-
ants Union of North Korea ap-
proached the President to intro-
duce a woman deputy.

When she made a bow with
a high respect, Kim Il Sung
asked her where she came from
and what she was. Then he
warmly told her: Children rep-
resent the future of the country
and we should take good care of
them. They should be healthy
from their childhood if they are
to grow tall and strong and be-
come reliable pillars of the coun-
try. In this respect paediatricians
have responsible jobs.

Then he asked how she had
felt when she was at a meeting
to discuss state affairs for the
first time after she was elected a
deputy of the people. She replied
that it seemed like a dream that
she, an ordinary doctor, had the
honour of participating in such
an important meeting presided
by the leader.

Hearing her reply,
Kim Il Sung said: All the depu-
ties here are the representatives
elected by the people, just like

you. So we deputies ought to be
their servants. From now on you
should fulfil your duty with a
high sense of responsibility and
pride as a deputy from the public
health sector that is in charge of
the people's life.

He then asked her to help
herself as the banquet was for
the people's deputies who had
been elected for the first time in
the country.

Moved by his great trust and
care the participants made up
their mind to faithfully perform
their duty as servants of the peo-
ple.

First political programme

On September 10, 1948, the
day after the foundation of the
Democratic People's Republic of
Korea (DPRK) was proclaimed,
Kim Il Sung announced the ***Pol-
itical Programme of the Gov-
ernment of the Democratic
People's Republic of Korea*** at
the First Session of the Supreme
People's Assembly.

In his programme, he clari-
fied the tasks relating to achiev-
ing national reunification, build-
ing a sovereign and independent
state and keeping the independ-
ence in the domestic and foreign
policies.

He also highlighted the is-
sues of consolidating and taking
forward the democratic reforms,
such as the agrarian reform, the
nationalization of industries,
the Labour Law and the Law on
Sex Equality enforced in north

Korea, and striving to introduce
them throughout Korea; oppos-
ing the economic enslavement
policy of the foreign imperialists
to build Korea into a rich, inde-
pendent and democratic state;
and building an independent
national economy and national
culture.

In addition, he expounded
concrete targets and methods to
be pursued by the Government
of the Republic in different sec-
tors. He declared: The Govern-
ment will train large numbers of
cadres needed in all fields of pol-
itics, the economy and culture;
direct great efforts to advancing
education, culture and the pub-
lic health service to improve the
people's level of culture; consoli-
date and develop the organs of
the people's power at all levels
in every way; and strengthen the
People's Army in every respect
to defend the territory of the
country against foreign forces of
aggression and to safeguard the
gains already achieved through
the democratic reforms in north
Korea.

It was the first historic pol-
itical programme of the DPRK
Government in which he de-
clared the Government's thor-
oughgoing conviction and will
to build in the liberated Korea
a prosperous state that would
be independent, self-supporting
and self-reliant in defence.

Policy to make genuine people's government

On December 15, 1977 ▶



Ri Mun Hyok (third left).

Thanks to Her Encouragement

ON AUGUST 15, 1945 Korea was liberated from the Japanese imperialists' 40-odd-year-long military occupation.

The Korean people turned out to build a new country under the wise leadership of their national leader Kim Il Sung.

The leader put forward the slogan "Let all women turn out for the construction of a new democratic Korea in solid unity under the banner of democracy!" encouraging women accounting for a half of the country's population to take active part in the undertaking.

The anti-Japanese war heroine Kim Jong Suk, in support of the leader's intention, led women to be active in building a new country. She paid deep at-

tention to the endeavour to rally broad sections of women around the Democratic Women's Union of North Korea.

In order to free women from feudal fetters, provide them with due rights and lead them to the creation of a new life, it was necessary to unite them into their own political organization as soon as possible.

Kim Jong Suk visited the Pyongyang Cornstarch Factory and different places including the East Pyongyang area to form local women's union organizations. And she made sure that all provinces, cities and counties accelerated the formation of such organizations in industrial establishments and farming and fishing villages, and that the membership was rapidly ex-

panded. Thus there was organized the Democratic Women's Union of North Korea.

Under the scrupulous guidance and instruction of Kim Jong Suk the union rallied the women in the general ideological mobilization movement for nation building. Meanwhile, it waged a vigorous drive to abolish illiteracy and conduct cultural enlightenment so as to raise the women's level of cultural attainment and political and ideological awareness and mobilize them to carry out the tasks of the anti-imperialist and anti-feudal democratic revolution.

Kim Jong Suk also went among the women to vividly explain to them about the national leader's idea of building a new country. One February day

the people. In order to discharge its mission as the servant of the people, the people's government should give full scope to socialist democracy in state activities.

He proved on a scientific basis that the democracy which the people's government would introduce fully in its state activities means the socialist democracy whereby the state formulates its policies in compliance with the will of the working masses, carries them out according to their interests and provides them in practice with genuine freedom and rights and a happy life.

In addition, he gave a perfect solution to the theoretical

and practical problems in giving full scope to socialist democracy, including those of enlisting the working masses widely in the work of the people's government, steadily enhancing their role in state and political life and building the socialist economy and culture efficiently.

The publication of the classic work on strengthening the people's government provided all the government organs with a vital guiding principle in discharging their duty as a genuine people's government, and it made it possible for the Korean people to fulfil their role of masters of the state and society.

Yom Song Hui

in 1946 she visited Sinhung-ri in Kophyong Sub-county, Taedong County. Helping the local women with their work she had a talk with them. Feeling friendly toward her, the women began to ask her what they had wanted to: A rumour is going around that the General [Kim Il Sung] will confiscate land from the landlords and give it to peasants. Is it true? Would he give land to the have-nots like us? They say that land will be given for money. How much do we have to pay for a hectare of land? Will the landlords give up their land for nothing?

Then she plainly explained: Our General will surely give land to you peasants so as to realize your desire. It is the reactionaries' lie that land will be given for money. There are only a few landlords, but there are hundreds or thousands of peasants in each locality. So, if all peasants are firmly rallied and fight with the support of the workers, the landlords will have no other alternative but to give up their land.

Her words helped the women to get ready for the land reform to be enforced sooner or later.

And during a visit to a fishing village in the northern tip of the country she explained the villagers about the leader's intention of forming fishermen's cooperatives, and during a visit to Yombunjin she, shelling mussels together with them, earnestly asked the women there to conduct the anti-illiteracy campaign more briskly.

In May 1946 the Pothong

River improvement project, the first great nature-harnessing project in Korea after liberation, was launched.

Previously the river had been a pronoun of misfortune as it had annually flooded doing damage to crops and inflicting innumerable calamities upon the local people. Washing 18 000-odd hectares of paddy and dry fields in the West Pyongyang area, the river used to sweep all ripening crops in the rainy season and take the properties and lives of many people.

Kim Il Sung proposed to improve the river in order to kindle the torch of the effort to build a new country by putting an end to the calamities of the river. On May 21, 1946 there was held the ground-breaking ceremony of the project with the attendance of hundreds of thousands of Pyongyangites. At the ceremony, the leader delivered a speech of encouragement, and picked up a shovel to be the first to break the ground.

That evening Kim Jong Suk, talking to officials of the women's union in the city, told them to call upon the women in the city to turn out for the improvement of the river in accordance with the leader's instruction.

Telling the women officials that it was the leader's far-reaching plan to harness the nature of the country to the benefit of the people, she said: We women in the city of Pyongyang should have a correct understanding of the General's intention and take active part in the project so that Thosongrang on

the Pothong River will be free from the sighs of grudge and the sound of wailing.

Then the women officials expressed their firm determination to have all women in the city turn out for the improvement of the river. Now she taught them in detail how to mobilize the women of the city and saw to it that a necessary measure was taken.

She frequented the construction site herself. Even on a rainy day she led the people there in accelerating the project, saying that however hard she worked she never felt tired as she seemed to see the day when a people's paradise would be created on Thosongrang. One day, when a spring abruptly rose from beneath the earth interrupting the work, she was the first to plunge into the knee-deep mud to check it.

The project, which had been claimed to take more than three years to finish, was completed in a matter of 55 days. This was partly attributable to the women's role under Kim Jong Suk's leadership.

Drawing on her experience in the river improvement, she visited many other parts of the country to lead the Women's Union organizations to rouse all the women to the effort to build a new country.

In those days the Korean women, who had been confined to household affairs as symbol of the weak, developed into masters and laudable pillars of the country.

Ri Jong Nam

President Kim Il Sung, in his speech *Let Us Further Strengthen the People's Government* given at the First Session of the Sixth Supreme People's Assembly of the DPRK, proposed all tasks for the people's government to fulfil its duty as faithful servant of the people, as well as ways to implement them.

In his speech he said: It is the honourable mission of the people's government to serve the working masses faithfully. The people's government should recognize its duty to safeguard and protect the interests of the working masses, and the officials of the people's government bodies should be the servants of

Our National Flag

SEPTEMBER 9 IS THE founding anniversary of the Democratic People's Republic of Korea. On the day the flag of the Republic is hoisted high in the blue sky, and the song *Our National Flag* reverberates across the country.

*When our blue and red flag
flutters high in the sky
Our hearts are burning with
the blood of patriotism.
Its strong fluttering is
replete with breathing
of the homeland,
And the flag as dear as life
bears the destiny
of the people.
We will love our brilliant
national flag.*

*May it keep fluttering
to the end of this world.*

The song was carried on the January 1, 2019 issue of *Rodong Sinmun*, the organ of the Central Committee of the Workers' Party of Korea, and since then it has become the Korean people's favourite song.

*When our blue and red flag
flutters high in the sky—it is a
simple expression, but it denotes
the Korean people's experience
of scores of years.*

In the early 20th century, they had to experience the bitter suffering of a ruined nation under the military occupation of the Japanese imperialists. When the Japanese invaders, with their

flag—Hinomaru—put on their bayonet, reduced villages to ashes and mercilessly killed innocent Korean people, they had to writhe in the sea of blood.

As they do not and cannot forget the bitter history, the Korean people hold the flag of their Republic, symbol of the nation, dearer than their lives, and burn their heart with patriotism, feeling the breathing of the country in the flag.

In a village in Sariwon City several years ago, there was an old man who used to hoist the national flag up a flagpole in front of his house early in the morning on every national holiday. He, Chae Jong Thaek by name, suffered the humiliation of becoming a stateless man, and was subjected to national contempt in an alien land. After the country was liberated from the Japanese military occupation, he served in the army all his life to defend the country.

The day before a national holiday he was bereaved of his wife. Now the villagers said the old man would not hoist the national flag. But the next morning they saw him in neat costume raising the flag as usual. Seeing him and the fluttering flag in tears they seemed to hear the solemn melody of *Patriotic Song*, the anthem of the country, and the images of the former generations came across their mind vividly, who braved through a hail of bullets in the flames of war, keeping the flag in their bosom, and built socialism while tightening their belt.

Such a warm and genuine feeling of the Korean people found its trace in the annals of their life.

A weaver Hero whom I met for news coverage some time ago



► said:

“One day in my childhood I painted the national flag with crayon on my drawing and handcraft book for the first time, and my parents wore smiles, looking at it for a good while—I can never forget it. As a child, I only thought that our flag was wonderful and beautiful. In my primary school days, together with my friends, I used to go up on a mountain and fly a kite painted with the flag so many times.

“As I reached the age of discretion, I was wrapped in a solemn feeling unawares the moment the national flag was hoisted. On each national holiday my family, too, raised the flag. Each time tears welled up in the eyes of my father, a war veteran. Many years later he said that he would think of his comrades-in-arms who asked him to hoist the flag of victory on the top of a height when they fell in battle during the fierce war. Having realized that the flag is associated with the blood of the revolutionary forerunners I began to keep it deeper in mind.”

Like this, the flag of the Republic is kept dearly in the mind of all the Korean people, along with their native places, homes, parents and alma maters.

*We will defend the flag
we have defended
generation after generation.
Our national flag will be
everlasting with the
might of love and justice.
Going down in the glorious
history of the Republic
for ever
The dazzling rays of the
blue and red colour
will cover the world.
We will love our brilliant
national flag.
May it keep fluttering to
the end of this world.*

The Korean people
still remember President

Kim Il Sung's instructions given to complete the flag:

The main ground of the flag should be red which symbolizes the red blood shed by the anti-Japanese revolutionary fighters who fought for the country's freedom and independence, and the revolutionary forces firmly united around the Party. The strip of white colour, which represents the homogeneous nation with thousands of years long and glorious national culture, should be thinner and clearer than that of the present design. The one of blue colour, which symbolizes the mettle of the Korean people fighting for the cause of socialism in unity with the revolutionary peoples in the world, and the sovereignty of the Republic, too, should be thinner than now. And the white circle should not be placed in the centre as now, but put on the side of the flagpole, and it will be advisable to draw in the circle a five-pointed star to symbolize the victory of the future.

Holding out the design he personally drew the President explained to the creators in detail about even the ratio of the flag. Thus the flag of a new country came into being, and the flag was as good as a textbook of life telling the Korean people what the country was.

Along with Korea's liberation they became masters of the country; to them the flag of the Republic was just the flourishing land and factories together with the joy of liberation and the beloved schools which taught the mother tongue to their children who did not know A from B. It was also as grateful as the free medical care system put in force in the flames of the war and as beautiful as the looks of the children getting the universal 12-year compulsory education.

Having keenly felt the preciousness of the flag the Korean people defended it at the cost of

their lives: during the war the Korean People's Army soldiers made a breach, holding it high as a banner of victory; patriots made the flag with their blood-stained pieces of clothes in prison before their death; overseas compatriots got aboard a ship to return to their country, waving the flag; and sportspersons held it high on the platform of honour.

In the days of happiness or trials the Korean people cast in their lot with the country invariably, and in the course of this, they dedicated their blood and sweat, kept faith and conscience, enjoyed happiness and realized their wishes—all of these are reflected in the flag.

The Korean people's love for the national flag just means their destiny and life, not merely confined to the song.

One can see it in every place where the people's rights are exercised, for example, schools including a branch school on a solitary beacon island, workplaces, hospitals including clinics in mountain villages, and polling stations to elect deputies of the people.

Under the flag they are rewarded according to the quantity and quality of work done, and ordinary industrial and farm workers become Heroes and deputies to the Supreme People's Assembly. So all citizens of the DPRK hear the sound of fluttering of the national flag as a sweet voice of mother, and recall their past and envision their future.

Seventy-odd years have passed since the flag came into being, and the generations of the revolution have changed. However, the song *Our National Flag* will be sung among the coming generations as well, invariably encouraging the Korean people to display their zeal of patriotism, struggle and creation.

Yom Song Hui

Main Motive Force for Development of Self-supporting Economy

TODAY THE BUILDING OF A SOCIALIST economic power is a major task Korea has set up. The country is putting in a primary effort to constantly increase the sci-tech capabilities by attaching importance to the talented personnel and giving precedence to science and technology in developing a comprehensive socialist economy. Regarding the talented personnel as the core force in the development of the self-supporting economy it is paying a great attention to the training of them.

The State set up the training of talented personnel as a matter decisive of the success of self-supporting economy at every stage of the developing revolution. Though it was in hard conditions and had a lot of work to do after its liberation from the Japanese imperialists' military occupation on August 15, 1945, the country put a lot of work into turning Kim Il Sung University, the first of its kind for the people, into the pedigree establishment for the production of talents. Even in the grim days of the Fatherland Liberation War in the 1950s it took the work of training talents as part of the State policies and called student soldiers back to their colleges. After the war they rendered a great service to building a socialist industrial state within 14 years, crushing the sophism of the imperialists that Korea would not be able to raise its head above water again even in 100 years' time.

In the 1990s, when the country underwent hard trials, it reared scientists uninterruptedly, and now they are the main force in building a socialist power.

At present Korea is propelling the work of training talented persons purposefully as required by the era of the knowledge-based economy. The education sector has set up a scientific educational development strategy, and is bringing about innovations in educational contents and methods. And all the sectors of the national economy are pushing ahead with the work of training talents methodically. This campaign is oriented to helping one's own sector or unit make good progress while keeping its work planted on the reality. What is essential here is to thoroughly implement the Workers' Party of Korea's policy of making all the people well versed in science and technology. The campaign is in full swing whose essential content is to improve the scientific and technical qualifications and level of the people up to those of the scientists and technicians.

A well-ordered educational and study system

has been established. Everyone enrolls in regular, correspondence and refresher course systems, accumulating profound sci-tech knowledge and fostering the ability to put it into practice. In particular, the State sees to it that people acquire new knowledge and improve their standard of learning ceaselessly in keeping with the developing reality that the demand for online education increases.

Conditions of study for the working people are fully provided. E-libraries have been set up across the country so that everyone can learn the sci-tech knowledge of his or her sector and know the global trend in the development of science and technology. In this course, people prepare themselves to be intellectual workers and masters of sci-tech development.

The strategic policy put forward by the WPK and the DPRK government for developing the country's economy onto a new stage of growth by expanding and reinforcing the foundation of the independent economy is to make the national economy Juche-oriented, modern, IT-based and scientific. And this campaign is not conceivable apart from science and technology.

Supreme Leader Kim Jong Un, Chairman of the WPK, is leading the campaign. In 2014 he visited the State Academy of Sciences first as part of his inspection of the national economy sectors in the New Year. This showed that sci-tech front is the front line in defending socialism, and that the rise and fall of the nation depends on the development of science and technology.

In 2016 he participated in the inauguration ceremony of the Sci-Tech Complex and cut the tape. He said: The inauguration of the Sci-Tech Complex shows how much importance the Party attaches to the science front. Operation of the complex, a valuable asset of the country, should be done properly so as to make a great contribution to making all the people well versed in science and technology and developing the country into a sci-tech and talent power. The country should be turned into a sea of talents who take a large share in accelerating the building of a socialist economic power. The complex is just like a ticket office selling tickets of a train going to the bright future.

Whenever the Supreme Leader gives on-the-spot guidance to different sectors of the national economy, he always stresses that they should

▶ positively encourage scientists and technicians to compete with one another in terms of talent and practical ability with a firm determination to lead the world so that they can fulfil their responsibility and role as pacesetters in the age of the knowledge-based economy.

In March this year he went to a polling station set up at the Kim Chaek University of Technology and cast a ballot for a candidate for deputy to the Supreme People's Assembly. And in his policy speech delivered at the First Session of the 14th Supreme People's Assembly held in April of the same year, he said that the main force that propels the development of a self-supporting economy is the talented personnel and science and technology, and stressed that attaching importance to the talented personnel and science and technology should be part of the national traits.

The zeal for supporting the country's economic development with science and technology is soaring high day after day, true to the intention of the Supreme Leader. This can be proved by the 34th National Sci-tech Festival held in May this year. *Rodong Sinmun*, the organ of the WPK Central Committee, wrote in an article as follows:

"Over 500 units and more than 1 200 scientists, technicians and officers highly appreciated at sci-tech festivals at all levels held across the country are participating in the current festival. In particular, a hundred and several ten senior officers of the units including general managers and chief engi-

neers take part in it, almost 1.4 times the number of the participants in the last festival which was 2.7 times that of the previous one. And over 650 items of main sci-tech success proposals are presented, over 20 more than those of last year's. The detailed sub-branch proposals number over 2 800, and over 2 400 more items of exhibits of 210-odd kinds have been presented than the previous festival. What draws special attention is that many successes of more significant importance are put on display as compared to the previous one."

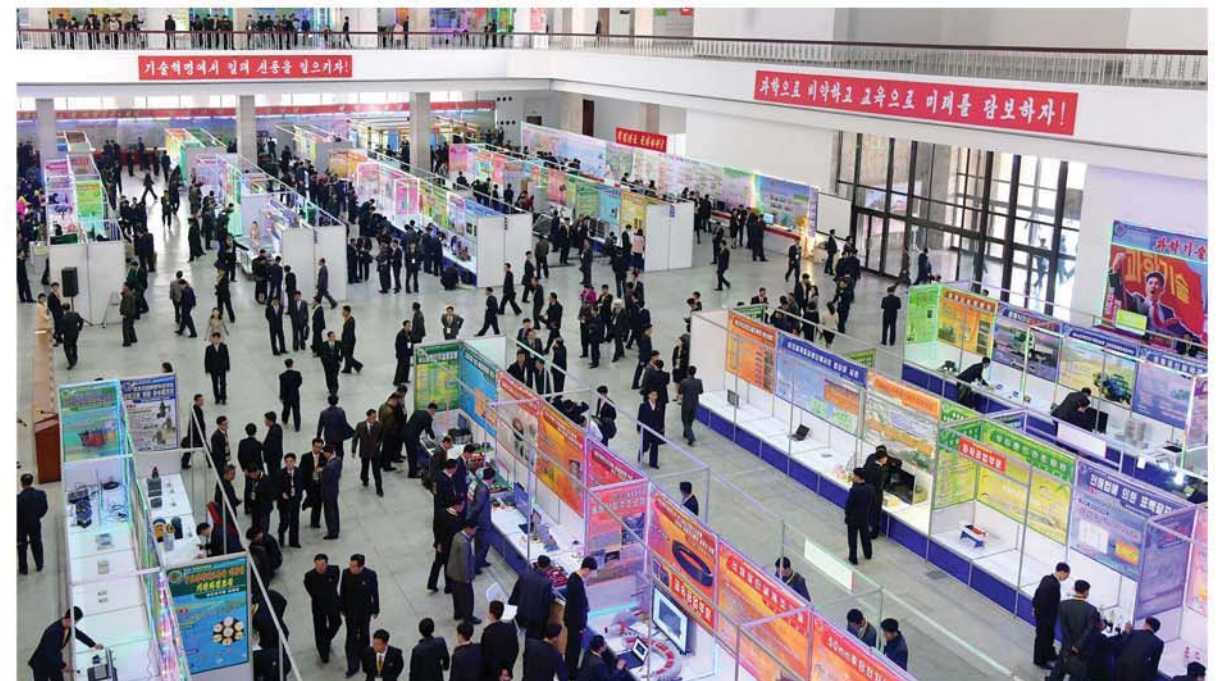
Sector-specific sci-tech festivals take place including the sci-tech festival of the Academy of Agriculture, the sci-tech festival of Pyongyang University of Architecture and the sci-tech festival of the State Academy of Sciences.

The scientists and technicians are making a decisive contribution to revitalizing the overall economy and developing hi-tech industry by conducting researches to solve sci-tech problems arising in reality, for example, the food and consumer goods problem of significant importance in the people's livelihood, and to making the country self-sufficient in power, fuel and raw materials.

The Korean people's strong zeal to accelerate the building of a socialist power with science and technology is bringing about a remarkable qualitative leap forward in all sectors of the national economy.

Ri Jong Nam

The venue of the 34th National Sci-tech Festival.



For Better Quality



NOT LONG AGO I VISITED THE SARIWON Bag Factory in North Hwanghae Province. In recent years factories for producing bags for school-children have been newly built or renovated in all provinces, and the aforesaid factory went up in Un-byol-dong of Sariwon.

When I met Ri Yong Sun, general manager of the factory, she said, “Built in 2017 our factory covers an area of over 4 320 square metres with a production building, a sample product room, a technical preparation room, a sci-tech learning space and cultural and welfare facilities.”

On display in the sample room were different kinds of bags for kindergarten, primary school, junior middle school and senior middle school children

and college students. The bags were made into various types and colours to suit children and students’ habit, likings and aesthetic sense. Sewing was done scrupulously lest the thread should get loose or break when bags are handled roughly—through the bags I could see the employees’ meticulous manner of work.

The general manager said that her workers were making strenuous effort to make even one bag to be conveniently used by the users.

When I went to the sci-tech learning space, Choe Sun Ok, senior engineer, said that the factory was putting emphasis on bag designing to produce multifarious and multicoloured bags.

The learning space serves as a hub where the workers can improve their special and technical knowledge and skills. The factory has built up a database which gives the relevant answers in time on the current trend in bag production and problems arising in the production processes such as cutting, sewing and finishing.

Kim Pong Sil, a needle worker, said, “I come



The sample product room.

► to this learning space to learn even one more thing with a thought of making good bags for students though I am a little exhausted after the day’s work.” She was a married woman, but enrolled at the online college of the Pyongyang Han Tok Su University of Light Industry last year. And most of women workers of her workteam are learning at the online college now.

Thanks to the efforts of the employees the qual-

ity of bags are improving day after day.

The technicians of the factory have introduced into production two innovations, making a contribution to the production of better and smarter bags.

Seeing the workers striving to make their products into famous ones I left the factory picturing the joy of pupils and students at better and smarter bags.

Kim Il Bong

Natural Monuments Newly Registered

SOME TIME AGO EXCEPTIONAL Subjects of great utility and preservation values in Korea were newly registered as natural monuments, namely, Ryongaksan Mineral Water, Hwapho Gold Mineral Water and Kumya Poplar.

The first water rises at the foot of Mt Ryongak in Wollo-ri, Mangyongdae District, Pyongyang. The water has long been widely known to the public for its good taste and quality. The name of Wollo (the elderly) was derived from the fact that from of old the village produced lots of long-lived persons thanks to the good water. Hearing that if one drank the water one could enjoy a long life,

it is said, lots of people would go to the mountain to drink it.

The second water, which rises in Hwapho-ri, Phyongsong, South Phyongan Province, is rare water that is actively used for long life in good health. As natural low-molecular water whose degree of association is 8, it contains small quantities of gold, silver and selenium.

The poplar is the biggest and oldest of its kind in the country. It is 38 metres in height with its crown extending 26 metres from east to west and 26.5 metres from south to north.

Rim Ok

Distinguished PhD in Materials Science

SOME TIME AGO I HAD an opportunity to meet PhD Yu Chol Jun of the Materials Science Faculty of Kim Il Sung University, a winner of the February 16 Science and Technology Prize, the highest award for the best scientists in Korea.

At the first sight I noticed he was a wise teacher. His gentle smiles made me feel his kindness. And he looked very young for his age of 44.

Hailing from Kumgang County, Kangwon Province, that boasts Mt Kumgang, he had never been out of his home village until he was 16.

But after graduating from the Physics Faculty of the aforesaid university he obtained a PhD degree in his thirties by inventing *Yu-Emmerich Extended Averaging Approach: YE²A²*, a new method of materials designing that amazed the global circle of science. Thus the method was named after his surname of Yu. Soon afterwards, he developed the ab initio thermodynamic theory which had been able to deal with only one kind of material component, into the one capable of dealing with more than two kinds of material component to the wonder of the global circle of materials science.

It was during his days at the university's postgraduate school that he determined to bring about innovations in the theory and method of materials designing. At that time materials designing was under way in accordance with the ab initio thermodynamic theory, a combination of quantum mechanics and thermodynamics. Having grasped the limitation of the

theory by which to take into consideration only the effect of oxygen in the air in designing a solid surface material, he was burning with a desire to pioneer a new field. As the kind of man who persistently delves into a point he once grasps, he continued with the related research day and night. Later he said, "The help of my wife, an alumnus of my postgraduate school, greatly encouraged me."

At last he developed a new theory capable of dealing with different gaseous elements for the first time. This earned him a doctorate.

Not content with the success, he decided to attain a new goal of designing energy materials, the focus in the field of materials science. He thus designed perovskite solar cell material and a sodium-ion battery material, and put forward a new explanation about their working mechanism. The research findings were carried in the international peer-reviewed journals scores of times, creating a sensation in the global world of materials science.

In June 2016 he was invited to act as a member of the organizing committee of the Asian Advanced Materials Science Conference held in Singapore. In December of that year he became a member of the International Association of Advanced Materials (IAAM) headquartered in Sweden. In July 2018 he read a paper at the Thomas Young Centre Workshop on Energy Materials held in London.

He also trained his students into pillars of the materials science world. Since 2014 he has



worked as head of the university's materials designing department. While pioneering new subjects and writing textbooks and reference books including *Applied Quantum Mechanics*, *Quantum Theory of Many-body System* and *Materials Simulation Experiment*, he, in cooperation with his students, developed high-performance parallel computer programs, thus establishing a massive parallel sci-tech computing system and an integrated materials designing support system. And he, together with his students, designed new energy materials.

Not a few of his students are holders of doctorate and other academic degrees. He and his students are now conducting joint research with research groups of Imperial College London, University of Hong Kong, China and Nanyang Technical University of Singapore, and constantly widening the relevant arena.

He was selected as the best scientist of Korea in 2018.

Rim Sang Jun

Developers of New Machine

RECENTLY, RESEARCHERS of the machine tool laboratory at the mechanical engineering research institute, the State Academy of Sciences, developed a CNC-based artificial eye lens processing machine, which makes it possible to conduct the ophthalmic treatment on a higher level in Korea.

The other day Jo Hyong Chol, head of the aforesaid laboratory, visited the Ryugyong General Ophthalmic Hospital and came to know the fact that the artificial lenses were being made by a manual method to be used in treatment, thus wasting much time and labour and causing not a few bottlenecks in treatment.

So he made up his mind to develop an artificial lens processing machine together with his researchers by themselves, and his idea was supported by them.

They pooled their wisdom to develop a program for controlling the artificial lens process while manufacturing a CNC-based artificial lens processing lathe, blanking lathe and artificial lens buffing machine.

Meanwhile, they conducted the research to develop nano-grade buffing material.

Several months later, a complete artificial lens processing set was provided thanks to their tireless efforts. There was the first trial of the machine, but the result was not as good as they expected. Their goal was to make an advanced machine.

They then began to develop such a machine with the help of the aforesaid hospital's medical

workers.

There were repeated failures, but they pooled their efforts and wisdom, and devoted all their energy to the undertaking. It was their opinion that the machine should have no trifling shortcomings as it was a machine to be conducive to the improvement of the people's health.

In July 2018 two years after the first trial, they succeeded in manufacturing the machine. The trial production of scores of times proved the stability of the machine and the product.

It was Choe Kyun Jin, head of the cataract department of the hospital, who was most pleased with the success. He had already succeeded in operating dozens of patients by inserting such newly-developed artificial lenses.

Kim Yun Chol, 58, a resident of Neighbourhood Unit No. 52, Jungdaedu-dong, Hanggu District, Nampho, who had once lost his eyesight owing to cataract, says, "I got an operation using

newly-developed artificial lens, and it seems as if I put magnifying lens on my eyes. Indeed, I feel as if I was born again. I can see the whole world."

Hong Yong Man, 59, a resident of Neighbourhood Unit No. 26, Rangnang-dong No. 1, Rangnang District, Pyongyang, says, "Previously it was difficult for me to distinguish things as my eyesight got poor. A few days ago, I got an operation on one of my eyes here, and I'm going to get an operation on the other. At the thought that I will have clear eyes I feel as if I become a child again. Our scientists are really the best. When I am out of the hospital I'll surely thank them."

The researchers are receiving letters of thanks not only from the medical workers of the hospital but also patients. And each time they are unanimously determined to do another good thing for the sake of the people.

Sim Yong Jin

Developers of the CNC machine to make artificial eye lenses.



New Composite Bacteria Developed



LAST YEAR THE FOURTH National Meeting of Activists in the Agricultural Field was held in the capital city of Pyongyang. Discussed in the meeting were the successes and experience achieved in the course of waging a high-yield movement true to the Workers' Party of Korea's policy on agriculture, and the methods of solving relevant problems.

Among many speeches the one delivered by Kim Chang Yu, section head of Kye Ung Sang Agricultural College of Kim Il Sung University, left a deep impression.

In his speech he said, "One of the important matters in improving the fertility of soil and the rate of grain production is that of organic fertilizer. Through several years of research I ensured a scientific guarantee to produce fermented

compost by using natural microorganisms, thus making it possible to further improve the growth conditions of crops."

One year Kim went to the Migok Cooperative Farm in Sariwon, North Hwanghae Province. Through a talk with agricultural workers during a break he understood that they felt sorry that they failed to secure much quality manure as early as possible. Then he had an idea of solving the matter by using bacteria.

In the course of studying the relevant documents and data he was convinced that it was quite possible, and buckled down to the research.

If highly-active cellulose-decomposing bacteria were obtained, it would be able to accelerate the decay of straw in natural conditions. Of course it could be easily done by selecting necessary bacteria and mixing them in laboratory. The scientist, however, chose to search for the existing microorganisms in nature so as to find out composite bacteria capable of producing high efficacy even in unfavourable conditions.

In order to select microorganisms adapted to different soil environments he travelled several places including forest and tideland to collect samples. What was more difficult was to find out

a highly-active bacterium among separated bacteria. He, however, made it possible to use ectosymbiosis microbes, which had been used in mushroom cultivation alone, for the growth of crops as well, and completed the composite bacteria consisting of over 20 kinds of highly-active bacteria.

The composite bacteria-based fermented compost he developed has proved successful in practice. The previously-used blue algae manures were none other than those providing nutritive substances necessary for the growth of crops. But the composite bacteria are an organic fertilizer whose microorganisms such as blue algae are active in soil and mass-produce humic acid. Its application in the Migok Cooperative Farm shortened the period of manure production by scores of days as compared to the past, and increased the yield by over 30%. And it improved soil structure as it raised the humus content of the soil.

Not only the farm but also other users of the composite bacteria are sending letters of thanks to him continuously.

Not content with the success the scientist is working on agricultural techniques more effective in increasing agricultural production.

Rim Hye Gyong

Promising Students

IN 2017 KOREA SAW TO it that some senior middle schools were turned into technical senior middle schools. Among them is the Jangchon Technical Senior Middle School in Sadong District, Pyongyang.

It is located in the Jangchon Vegetable Cooperative Farm that specializes in supplying vegetables to the city. The school teaches students agricultural technology in keeping with its regional characteristics, including crop cultivation, the ABC of farming process, methods of handling and managing crop production means and the practical ability to use them in the farming activities.

The students are preparing themselves through the practical activities as well as theoretically, from the selection of seeds in consonance with the soil and climatic conditions of their locality to all other processes of farm production.

The teaching of the school is oriented to enabling students to understand agricultural techniques theoretically and scientifically. In many cases lessons are given on the farming practice field of the school and on fields of the local cooperative farm.

Last year alone, the students themselves planted and cultivated crops like corn and vegetables like cabbage and radish on the practice field. Observing the growth of the crops and vegetables and manuring and cultivating them in keeping with the scientific and technological requirements, they consolidated what they had learned, and had the taste of gathering the fruits associated with their efforts. In spring this year, they went to the cooperative farm to transplant rice, and now they are picturing a rich harvest in autumn.

It is important for them to learn more than one technical

skill. Many of the students can handle such agricultural production equipment as water pumps and rice-seedling transplanters. They not only know the structure of the machines but also are able to design simple ones.

In this course, they understand that only when they devote their sincere efforts in any case, will they be able to have a good result. At the same time, they cultivate the spirit of loving and bettering their home village.

Next year the first graduates of the school will begin to work on the farm. Choe Kwang Hun, one of them, says, "Whenever I go to school, I look at the crops growing on the farm fields. And I am absorbed in lesson with the thought of how to tend better the fields that my parents have done all their life. In the future I'll study hard to be a pillar of the farm."

Rim Ok



Developing Dreams



Jon Hwa Jin.

IN JUNE LAST THE NATIONAL EXHIBITION of children's science fictions and models-2019 was held at the Sci-Tech Complex situated on the picturesque Ssuk Islet of the Taedong River. Presented to the exhibition were over 400 science fictions and models showing the fecund imagination and talent of schoolchildren across the country. What especially drew the attention of people were two boys mounting the platform of honour together. They were Jon Hwa Jin and Jo Ung Il, first graders of the junior course of Moranbong Secondary School No. 1 in Pyongyang.

World of Fantasy

Jon was unusually intelligent and clever from his childhood. He learned counting at the age of two, and began to read newspapers and



magazines when he was three. Especially, his faculty of inquiry and imagination were exceptional. He would not neglect any phenomenon but asked such questions as "Why?" and "Is it impossible to be done this way?" to the surprise of his teachers.

His imagination got richer after he was admitted to the aforesaid school. One day, when he carefully listened to the teacher's explanation that the steam of boiling water produces electricity in a natural science lesson, an idea came across his mind. Now he said to the teacher, "My country has hot springs everywhere. Is it impossible to produce electricity by using them?"

Then laughter swept the classroom. Other classmates said in unison that it was impossible. Only their class teacher Kim Song Mi had a different thought. She wanted to support his dream and give full play to his imagination. Thus the boy, under the guidance of the teacher, could make a science fiction model which produces electricity by using hot spring water, and present it to the above-mentioned exhibition.

After the exhibition the boy said to the teacher, "I'll surely become a scientist to translate the fantasy into reality."



Jo Ung Il.

► "You're my pride"

At the exhibition Jo presented a science fiction model which produces electricity on a mobile lorry by gasifying lignite the country is abundant in. As the model requires little investment and is favourable for environmental protection, it drew the attention of the participants.

His father is a worker of a thermal power plant. He respects his father. The son's respect for the father does not merely originate from the kinship relations.

Your father is a well-known innovator, and he keeps the bright light of the capital city. These sincere words of people made the son feel proud of the father. The boy's father was always at his workplace, saying that he should work harder for the country which sets up workers as its masters—this inspired the boy with respect for his father.

For this reason the boy conceived a high-efficiency generating system which is easy to use, and thus he could present a model of a mobile lignite gasification-based generating system at the exhibition—it was a valuable bud dedicated to his father and the country. Showing the model to his father the boy said, "In the future, I'll make the system with my own hand to give bright light to the people."

Embracing his son the father said, "You're my pride."

The two boys are striving to bring their dreams into reality.

Kim Hyon Ju

Stress and Sporting Activities

STRESS IS ONE OF THE CAUSES OF diseases in modern times. What takes a larger proportion in the kinds of stress factors is the occupational stress. According to the recent research, heavy-burden affairs and responsibility among the brain workers invite serious diseases such as insomnia, anxiety, hypertension, angina cordis and myocardial infarction.

Stress cannot be prevented, but can be overcome by different methods. The most effective one is to do sporting activities good for health. Many researches show that when man does exercises and constantly trains his body, he could boost immunity and keep and maintain a favourable mental state.

Those people who keep fit by doing regular sporting activities get less undesirable results caused by stress. Regular and moderate exercises help improve the ability to overcome the cause of agony, anxiety and melancholy more effectively, thus improving the health condition.

Sporting activities also play a positive role in sleeping. The activities should be done in accordance with age and individual physical preparedness. Man's capacity for sports reaches the top at the age of 18 to 25, gradually decreases after the age of 40 and does by half at the age of around 60 as compared to the prime of life. □

Family of Educators Held in Respect

KIM SUN OK'S FAMILY IN SARIWON, North Hwanghae Province, is called educators' family by the local people. Since her girlhood Kim has worked as a teacher of the primary course of Sinchang Senior Middle School in Sariwon for 40 years until now. Her husband worked as a department head of the then Sariwon Medical College for dozens of years. Her daughter and son-in-law teach at a primary school and a senior middle school in the city respectively.

A woman of nearly 70, Kim has faithfully devoted her life to the education of the rising generation with the help of her husband An Jong Su.

It happened when the universal 12-year compulsory education was enforced several years ago. Kim found her ability poor while preparing the teaching plans in keeping with the widening range of the educational content and the rising level of education. So one evening she told her husband her intention of giving up teaching. Then he encouraged her saying that an educator should live a life to be an example to the students, and that she could do anything if she made efforts as in her youth.

Later, the wife made a strenuous effort to improve her ability continuously, and made a teaching aid which helps the students find the principle and formula of motion of a body by themselves. The teaching aid made a great contribution to improving the students' cognitive faculty, and her experience widely spread to the teachers of the school.

The husband had trained many disciples while teaching younger generations for over four decades. He was a veteran educator who compiled nine teaching materials during his 20-odd-year career as a department head. Under his meticulous guidance



Kim Sun Ok.

and support his daughter, An Kum Ju, developed into a competent educator, and is now working as the vice-head of Unha Primary School. The school is widely known as a model one in the city.

Her husband Ju Thae Yong, a literature teacher of Tongni Senior Middle School, is training able students while guiding a literature circle. His collection of works *Sing More Loudly "We Are the Happiest in the World"* was highly appreciated in the literary world. He says, "What I felt first when I became one of the members of this educators' family was the feelings of ardent love for and devotion to the students. The fragrance of love emitting from our family embraces them warmly and trains them into fine pillars of the country. It made us enjoy respect as an educators' family."

The family receives letters from their disciples constantly. Whenever they read them they take a pride in being educators and renew their determination to live keeping the pride as the greatest wealth of life.

Kim Yong Un

Daughter An Kum Ju (centre).



Son-in-law Ju Thae Yong.



Factory College Trains Competent Personnel

PYONGYANG COLLEGE OF Technology admits workers from factories and enterprises in Pyongyang including the Pyongyang Kim Jong Suk Textile Mill. After the day's work students have lectures from 5 o'clock in the afternoon and they go through five-year courses.

As they are all shopfloor workers, they are interested in solving scientific and technical problems arising in their own workplaces, and the teachers' lectures are also oriented to their solution. Teachers and students leave the college together late in the evening, when they usually have Q & A about field problems.

It is not without reason that there can be seen many graduates of the college among competent technicians and skilled workers who are contributing a large share to operation of their plants.

Choe Sun Dok, chief engineer of the East Pyongyang Thermal Power Station, is one of the graduates. He enrolled at the college, when he was a worker at the industrial laboratory of the station. Since he finished the course of electrical engineering, he has solved so many technical problems arising in the station that he is recognized as a man of ability. A few years ago he received the February 16 Sci-tech Prize, the top award for scientists given by the State, for his transforming a rotor axis of Generator No. 2.

Some time ago, another graduate, Kim In Chol by name, visited the college. Because he was struck with a bright idea of remodelling tagger looms of the Pyongyang Kim Jong Suk Textile Mill into pneumatic ones. As it was a feasible idea, they soon formed a research team with the factory's graduates and teachers of the college. In Chol took charge of remodelling the mechanism. The knowledge of textile ma-

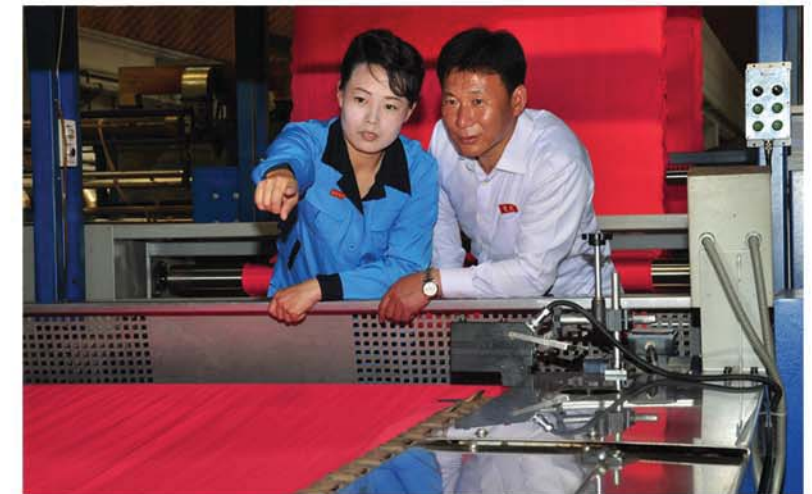
chinery he had learnt at college turned out to be great assets. With the remodelled machines the weaving speed increased more than two times.

Not only graduates but also students of the college are taking the lead in solving field problems. Among them is Song In Guk, worker at the State Academy of Sciences. As he was interested in electronics, he majored in computer engineering in the college, learning knowledge of control programming.

In the course of this, he produced scores of innovative ideas, developing an automatic device for controlling the pulp making

In the college there are many couples of students, too. Among them is a couple—Kim Chol Jin and Choe Kum Ok—who work at the Pyongyang Kim Jong Suk Textile Mill. Both of them major in textile engineering. In their college days, Kim made a contribution to increasing kinds of tetoron-rayon fabrics and solving the brilliance problem; and his wife studied how to prevent printed cotton from fading, and in this course she became a workteam leader.

They work and study together with the same major, and they are well known as a couple of model students and workers.



The couple workers of the Pyongyang Kim Jong Suk Textile Mill attend college.

process and an automatic device for protection of dynamotor, and remodelling a power unit of numerically controlled paper cutter. He left the college this year with an academic degree, and now he is held as a treasure of his factory.

Though different in job and position, the students exchange knowledge and experience of their fields during the college days, and in this course they make friends.

Kim Kwan Guk, vice rector of the college, says, "Scores of years ago, the country saw to it that the study-while-you-work system was established and the factory colleges were established. We are just one of them, and we have taught tens of thousands of students. The close combination of education with production activity helps train lots of practical talents."

Rim Ok



A Day of an Emergency Hospital

AT 11 O'CLOCK OF Sunday night of June 16 last, an emergency call rang at the reception of the Pyongyang Municipal Emergency Hospital. It came from a section doctor in charge of Neighbourhood Unit No. 7, Soryong-dong No. 2, Taedonggang District, asking for a sick call for a serious intestinal obstruction case.

With the end of the call, an emergency bell rang through the hospital; doctors and nurses came in haste and some of them hurried to get the patient.

After a while, the ambulance returned with the patient who pressed the stomach with her hands—she seemed as if she

was breathing her last. The doctors immediately diagnosed the disease as serious intestinal obstruction. If the intestines ruptured, they would infect the abdomen and the abdominal cavity, so if the operation was not given in time, the case would go from bad to worse.

According to the patient's family members she had often suffered from chronic intestinal obstruction, but she would neglect it as the pain would stop after a while. They said they thought that it would be okay this time too before the undesirable thing occurred at last.

A treatment team headed by Kim Jong Gil, head of the

abdominal surgery department, was organized, and the relevant measures were taken to prepare the operation. Different kinds of transfusion including nutritive one, antibiotics and analgesics were administered to the patient before the operation.

As expected, small intestines ruptured, thus the infected area of the abdomen grew large. The operation went on in a difficult condition—it took an hour and a half. It was successful, and the life index of the case was restored to the normal.

At the time Kim Nam Chol, 55, who is the husband of the patient, said, "I was worried when my wife was sent to the hospi-

► tal because it was late Sunday night. However, when I arrived at the hospital, I could see many medical workers engrossed in the intensive treatment for my wife, and thus they brought her back to life at last—it made me think a lot. I often see such scenes through books and on

TV, but now I keenly felt that our social system and our doctors are the best. Really, I can hardly find words to express my thanks."

That night the doctors of the hospital brought two other emergency cases back to life.

Ri Kwang Hyok, vice director

in charge of technical affairs of the hospital, says, "Protecting the people's life is a due duty of us medical workers. So we are always busy. Whenever we see the patients recover, we take pride in our job."

Sim Hyon Jin



Staffed with Good Doctors

THE PAKCHON COUNTY People's Hospital in North Phyongan Province is not so large, the kind of which can be seen in any of rural communities in Korea. Though not so long since its establishment, the hospital has already won a good fame as it is staffed with a lot of good doctors who are devoted to treatment of diseases and improvement of public health care. One of these days I went to interview some of them for *Korea Today*.

Choe Jong Chol, a surgeon in his 20s, is wont to say, "Human life depends on the ability of the doctor." And this is a principle he holds fast to in and out of his life, as well as in his service for patients. Though young both in age and experience, he is counted as one of the most competent doctors in the hospital.

One day in June last year he successfully carried out an operation on Ko Jong Ok, a farm worker from Maengjung-ri, thus saving her from the jaws of death due to pancreatic necrosis. This operation earned him a fame not only in the province but also all across the country. Thanks to his enthusiastic and honest effort which has never dwindled, Ryu Ki Chon from Tongsam-ri, Unjon County, who had been suffering from spontaneous gan-

grene, and Kim Sun Chol from Pakchon Town, who had been in bed for liver abscess for a dozen years, got well again.

So Hyon Il, a physician of the Koryo medicine department, is also renowned for his expertise in dealing with diseases that affect the nervous system. He has got a special technique in treating lumbosacral neuromyositis. His technique of applying local injection along with traditional Korean remedies is successful in almost all cases. Scores of people who were bedridden with lumbosacral neuromyositis have recovered and returned to their workplaces thanks to his endeavour.

Few people have so many nicknames as Jong Son Suk, chief pediatrician of the hospital. She usually goes by the title of "our doctor" among the county population. On April 7 this year an acute encephalopathic case was rushed into the hospital. It was Kim Ryon A, 7, from Neighbourhood Unit No. 295, Pakchon Town. She was in a critical condition with serious convulsions of cough coupled with vomiting. She, however, left the hospital in good health six days after she received treatment from Jong. The pediatrician's hands have saved a lot of lives, including Kim Chong Il, 11 months old,

from Neighbourhood Unit No. 88, Pakchon Town, who was in high fever and shock due to poisonous pneumonia, and Ri Ji Un, 15, from Neighbourhood Unit No. 5, Wonnam-ri, who had had great troubles with walking because of rheumatism. Jong also goes by the title of "publicity agent." When she has mothers calling on her for treatment of their children, she always gives them some hygienic information, like how to control the nourishment of babies for their first 1 000 days, how to give first aid to cases of acute pneumonia and diarrhea, and so on. Some short remarks of hers are enough for the visitors to feel at ease and relieved.

They think the busiest person in the hospital is Pyon Sun Nam, a physician of the clinical department. His daily routine is usually made of calls on war veterans, demobbed army officers, and disabled ex-servicemen of special category. He finds his pleasure in getting on his way to their homes rain or snow. Kim In Ho, 87, a war veteran resident at Neighbourhood Unit No. 22, Pakchon Town, says, "I've been under Pyon's care for five years. Now the happiest moment in my life comes when I expect him. Just his presence is enough for me to feel relieved."

Kim Son Myong

Patients are looked after with sincerity.



Pride of Gymnastics Coach

THE PYONGYANG SPORTS Club has not a few gymnastics stars including Ri Song Sop, Choe Jong Sil, Kim Kwang Suk, Hong Un Jong, Kim Su Jong, and Jo Jong Chol. Hong Un Jong, Kim Su Jong and Jo Jong Chol's rise to fame is attributable to the unknown efforts of Ri Chol Su, senior coach of the club.

Ri is widely known as a veteran artistic gymnastics coach in the sports circle. As a schoolboy in a mountainous village in Unsan County, North Phyongan Province, he was at home in sports. In his early middle school days he skilfully performed some difficult movements on the horizontal bar and the parallel bars. Seeing him the villagers said in unison that "The son of a humble family may rise to glory," and that he would become a sports master.

Some time later the boy was transferred to the then Pyongyang Municipal Sports Team. He studied in the artistic gymnastics circle of the sports club and got the basic education. He participated in the DPRK championships and other domestic games, and international competitions such as the Asian Games several times, demonstrating his ability to the full. He always had an ambition to become a world-famous gymnast.

One day he was practising different difficult movements he invented when he made an unexpected mistake, thus becoming unable to act as a gymnast anymore. He then recalled the scene of his school teachers, villagers and friends, hoping that he would become a world-class gymnast by training hard in Pyongyang. *I cannot give up, and I'll devote everything to training*



Ri Chol Su (centre).

excellent reserve gymnasts, he thought.

Now he became a coach and strove to invent new teaching contents and methods.

It happened when he was guiding Jo Jong Chol in training. Jo was a promising gymnast who had ranked among the top three several times at domestic competitions. He had a unique kinesthetic sensation in pommel horse exercises. But he rested on his laurels, and did not bend his energy on training. The coach told him that the past successes were important, but tomorrow's success was more important, because it was related to the dignity and honour of the country.

Later, Jo completed one after another difficult movements such as a double leg circle and leg crossing. He thus won first place at the pommel horse event of the 15th Asian Games.

Hong Un Jong, a People's Athlete, says, "Senior coach Ri Chol Su always stressed that we should be successful to add lus-

tre to the country, the thing he had failed to do. Whenever I performed wonderful movements, he was pleased as if his own daughter had done a good thing. Still, he used to say that original movements should be created in order to perform high-level skillful movements. I won a gold medal by succeeding in doing 900° and half back somersault in the vaulting horse event, the one quite difficult even for male gymnasts to perform, and this is attributable to the coach's effort."

And it is inconceivable apart from his effort that Kim Su Jong won first places at the seventh Asian championships and the 18th Asian Games held in 2017 and 2018 respectively.

The coach has produced three People's Athletes and six Merited Athletes.

The male and female gymnasts of the club still take first place in the domestic ranking.

Sim Hyon Jin

“Little Star of Sinpho”: Today and Tomorrow



THE KOREA TODAY EDITORIAL BOARD introduced Kim Kyong Hwa, DPRK Labour Hero and People’s Athlete, through eight issues including the last one. People loved to call her “Little Kyong Hwa” No. 20—she was master of powerful middle- and long-range shot, and corner kick.

She left so many anecdotes for her small stature, but it can be said that she acquired all the honours to be envy of others. Because her childish dream of becoming a footballer started from a small school ground in Sinpho, South Hamgyong Province which is far away from the capital city of

Pyongyang, and ended in success.

Everyone believes or wants to believe that Kyong Hwa now enjoys a beautiful, happy life. She, however, is not sure of her success yet.

The 16th Asian Games held nine years ago was the last opportunity for her as a footballer. In the finals of the games the DPRK team allowed a goal to its opponent, thus it failed to mount on the platform of winner.

After the games the girl wrote on the last page of her training diary as follows: “I never thought that the final match which can be said to be the farewell match to me in the national women’s football team would end like this. This will be recorded as an unforgettable shame in my football career.”

This memo left an indelible imprint not only in the diary but also in her mind.

So she determined to train players who would restore the honour, and is dedicating all her life to the purpose. The first page of the training register she always carries reads, “So far I have never thought that I’m a Hero. The gold-star medal of a Hero should give brighter light today and tomorrow as before. The road to success was not as short as I had thought. But when I believe in myself, a shortcut will come into existence, and it will encourage me.”

She worked as an assistant coach for several ▶

▶ years before becoming a senior coach. She is convinced that win and defeat in a match depend on a coach’s tactics and strategy and competent leadership. So, when she has any spare time, she maps out tactics or contrives training apparatuses. And she strives to train her players into those possessed of forte and strong physique. Football keeps its place in her brain.

Whenever she has hard and difficult times, she often thinks of the people in her hometown. When she visited her home after being awarded the title of DPRK Labour Hero, there took place a ceremony at the then Ohang Senior Middle School to register her as the 12th Hero of the school. The people in her home village greeted her as the pride of the village, embracing her in pleasure. Then they asked her to train many famous footballers like her.

Kyong Hwa regarded the request as that of the country, not merely the people in her hometown. Coaches Kim Kwang Min and Choe Kwang Sok who helped her lead a successful career as a footballer still support her.

Now she lives in an apartment house, which was allotted to her by the State, in downtown Pyongyang. Whenever her neighbours worry that she would miss a chance of marriage, she replies, “I’ll think of and love only football today and tomorrow.”

There is no change in her appearance—training uniform, sunburned face and short hairdo. But she burns with the zeal to add lustre to the country with football.

Yom Song Hui



Kim Kyong Hwa trains fine footballers.



GYMNASTIC AND ARTISTIC EXTRAVAGANZA

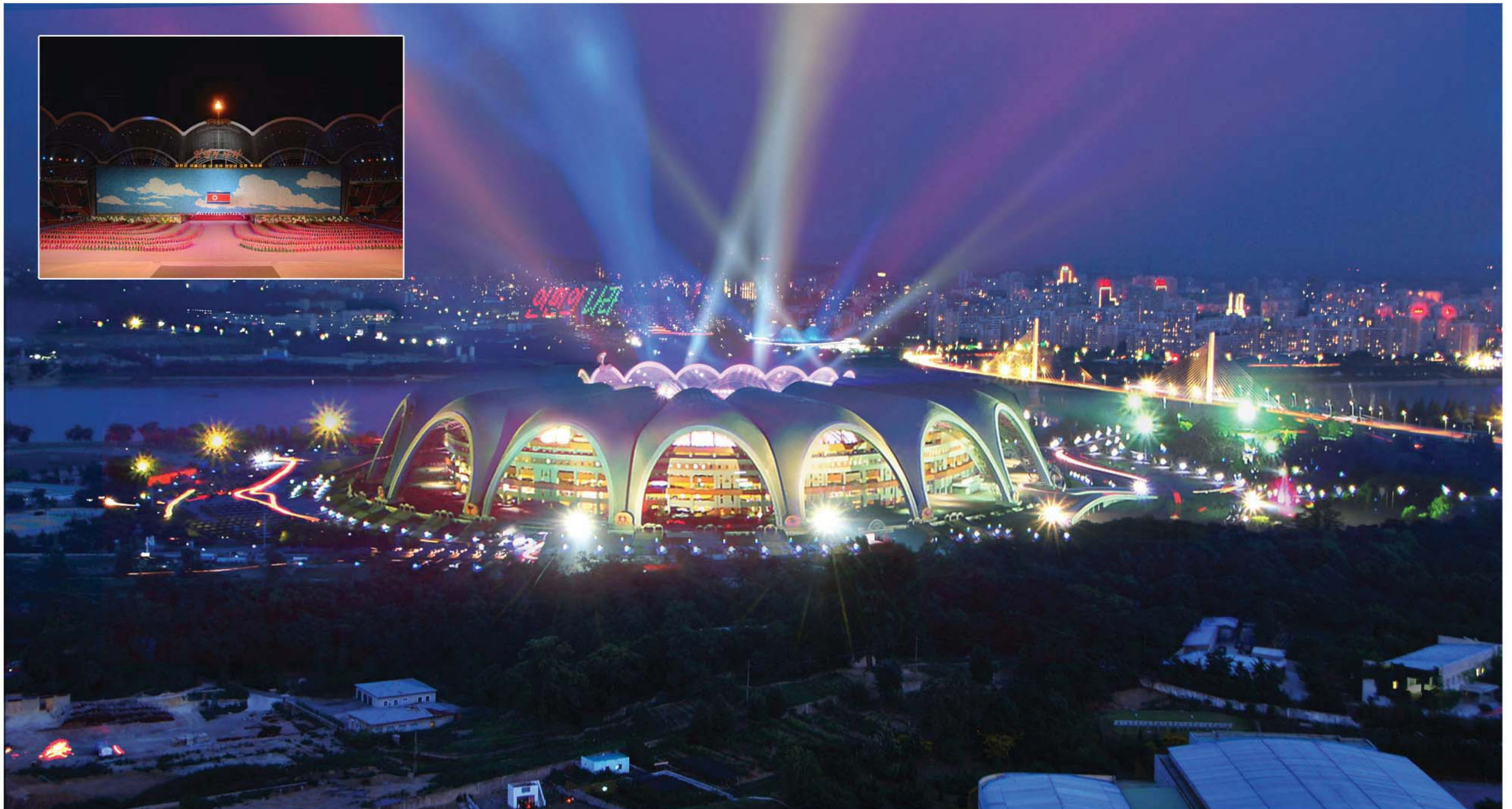
IN EARLY JUNE THIS YEAR PYONGYANG, capital of the Democratic People's Republic of Korea, opened the grand mass gymnastics and artistic performance "The Land of the People," which is staged day after day.

The country's tradition of mass gymnastics dates back scores of years. In particular, the Kim Il Sung Prize-winning grand mass gymnastics and artistic performance "Arirang" in 2002 was listed in the Guinness Book of Records earn-

ing the fame as one of the "Eight Wonders of the World" and the "masterpiece of the century." It was a world-famous attraction over the whole period of ten years of performance.

Last year another performance of the kind was put on the stage with the title of "The Glorious Country," demonstrating a new phase of development.

This year is seeing a new one titled "The Land of the People," presented by a huge number of peo- ▶





▶ ple, many of whom are professional entertainers from the Mansudae Art Troupe, National Folk Art Troupe, Phibada Opera Troupe, National Acrobatic Troupe, Wangjaesan Art Troupe and other troupes.

There are many celebrated entertainers among the performers, like those who have been honoured with the titles of Merited Artiste, Merited Artist and February 16 Art Prize laureate. Especially, the pianists Pak Kon Ui, Han Si Nae and Choe Jang Hong who play in the second scene “Defending the Cradle” of the first act are famous artists who cut their figure at international piano contests in their childhood. The other performers are all young workers, students and children. Staging a complex of all types of art like music, fine art, dancing and acrobatics, the performers present a marvellous and original entertainment, largely divided into mass gymnastics and artistic performance, through well-coordinated acts and enthralling techniques and skills.

The third scene of the second act “We Are the

Happiest in the World” is unfolded by children of under ten. The children who do the rope skipping come from the Ponbu Kindergarten in Sinuiju, and the children who perform on a monocycle are twin girls Om Kang Un and Om Ryong Un from the Kaeson Kindergarten which is affiliated with Pyongyang University of Education. Earlier in the grand mass gymnastics and artistic performance “The Glorious Country” they already enjoyed a big hand for their wonderful performance.

More than 1 000 children show different gymnastic movements in complete unity, drawing great admirations and praises from the audience. Their cute acts enrapture people instantly, helping them to see the bright future of Korea clearly. This is one of the most impressive scenes of the performance.

What is spectacular is the kayagum ensemble and the Sangmo (white feather) Dance. Kayagum is a national instrument of Korea, which was invented by Uruk, a talented musician in the early 6th century. Attractive is the performance of a trio ▶

▶ of Merited Artist Han Chol, 70, February 16 Art Prize-winning Kyong Nam Chol, 42, and 9-year-old Ri Ju Sang; the performance of more than 1 200 kayagum players and national percussion instrumentalists evokes national sentiments.

Sangmo Dance is the point of the traditional peasants’ music and dance programme of Korea. In the programme the farm workers with drums and large and small gongs wear a hat whose top is decorated with a short bamboo stick or gem fixed with a white heron feather or long white paper tape. This kind of hat is called Sangmo in Korean, hence the name of the dance “Sangmo Dance.” Sangmo dancers show their skills by turning the feather or the tape round and round. The dance is not only a piece of folk art but a traditional item of national art which is representative of the talent of the Korean people. It is a typical thing of the Korean art, which enjoys a big hand in the international arena. Merited Artiste Hong Jong Guk of the Phibada Opera Troupe, who plays the main role in the Sangmo Dance in the ongoing extravaganza, is famous for his turning the

Sangmo since he was a teenager. At the moment he swings the tape as long as 60 fathoms.

The background display is just the cream and symbol of the performance. It is presented by over 17 000 senior middle school students in Pyongyang. Through concerted and diversified acts they unfold dynamic and static scenes which are similar to computer-made things. Showing the ideological and thematic message of the performance through large, symbolic, rhythmic and 3D pictures, the background display is more than enchanting.

The attraction of the entertainment is enhanced with the application of unmanned planes, 3D images, laser projection, different kinds of illumination and other latest means.

The chief director of the performance is Kim Su Yong, head of the direction department of the Mansudae Art Troupe. He directed a number of acts and scenes of last year’s grand mass gymnastics and artistic performance, including the prelude “Sunrise on Mt Paektu.”

He says, “The performance reflects the whole ▶



▶ history of our Republic from its foundation up to now, instead of a certain period of the history or a certain stage of its social development. It unfolds a grand epic image of the socialist country which was once a colony but is now translating the dream and ideal of the people who are masters of the country. How we have built a people's country and what kind of country it is that we are building up is to be seen through organic combination of pictorial art, music, formative art, illumination, rhythms and latest science and technology. It is in no way an easy job for tens of thousands of performers to make a perfect presentation in wonderful cooperation, but we have reached a high artistic phase by working together in one mind. The performance is good enough to show the image of the single-hearted Korea."

The grand entertainment is going on with large audience at the May Day Stadium on the picturesque Rungna Islet. The stadium can seat 150 000 people, and it is filled to the capacity evening after evening. It is one of the greatest attractions to the people around the world, to say nothing of the Koreans. Some people are so captivated that they come to see it twice or thrice.

The performance will be on till mid-October.

Rim Ok



Elderly Woman Grows Nut Pines

ONE EARLY SPRING DAY in the late 1990s a woman in her mid-fifties climbed up Mt Jangja in Jangja-dong, Kanggye, Jagang Province. She dug up the roots of grass and trees and stones, and sprayed humus soil to make a small-sized nut pine nursery.

She was Kim Ae Ok who had retired on a pension some time before. She had worked as the head of the children's health care department of the Jagang Provincial Children's Hospital. She was not a farm worker or a forest ranger. She could enjoy the rest of her life in comfort under her children's care. Why was she working so hard unnoticed in the deep mountain?

The old woman had an idea.

It was just after the Korean people had overcome the Arduous March and the forced march. Owing to the imperialists' economic sanctions and the consecutive natural calamities they had suffered lots of losses in human lives and materials. Forest resources were no exception. Seeing bare mountains she was sorrier than anyone else.

Now she was determined to spend her remaining years in planting even a single tree on the mountain of her village. Her husband Kim Thae Ho was the first to support her determination. He said, "If the nut pines we plant make a forest, nothing will be a greater wealth than it." Thus she began to plant and tend nut pines.

At that time Mt Jangja had two nut pines planted by young Kim Jong Il and his sister on October 10, 1950, the first year of the Fatherland Liberation War (1950-1953), while envisioning the future of the country after its winning the war.

She decided to gather seeds from those trees to cultivate saplings. But it was not an easy

job. Once the couple was so tired with weeding all day long that they sank to the ground while descending the moonlit mountain. They never had carefree days as they always had to worry about the saplings lest they should droop in drought or freeze in winter.

She finally succeeded in cultivating the first saplings in four years, thanks to her painstaking efforts all year around. She planted them on Mt Jangja and in other places of the province.

Several years passed, and the trees grew in thick verdure, bearing fruit. Seeing the fruit she decided to spread the nut pines across the country. She and her husband carried knapsacks with saplings in them on their backs and travelled throughout the country. With the passage of time, nameplates inscribed with "Kim Thae Ho and Kim Ae Ok's family in Neighbourhood Unit No. 8, Sinmun-dong, Kanggye" increased everywhere. After planting trees the woman used to say about the noble patriotism of the People's Army soldiers who defended every inch of the country with their blood during the Fatherland Liberation War, and that patriotism is just love of every blade of grass and a single tree in the country.

And she often sang songs or recited her own poems.

Thus she planted nearly 200 000 nut pines at 260-odd units across the country. She received letters of thanks from here and there, and she began to be called *Nut Pine Grandma in Kanggye*.

Not content with this she planned to plant nut pines on Mt Paektu (2 750 metres above sea level), the sacred mountain associated with the nation's soul and spirit. To this end she prepared a new tree nursery on Hwangcho Pass (1 208 m) in Rangnim



County, and acclimatized nut pines there to be planted on Mt Paektu. In the course of this, she left many anecdotes: she lost her way, wandering all night as she worked late at the tree nursery unaware of sunset; she fell asleep on the way to Mt Paektu as she was exhausted carrying the acclimatized saplings on her back; and a driver kindly carried on his car her boxes of saplings to the mountain.

Her efforts bore fruit. Five years later she could plant nut pines in the Mt Paektu area, especially on the shores of Lake Chon at the top of the mountain.

Recalling those days she says, "Everywhere I go, people are glad to meet me, saying, 'The Nut Pine Grandma in Kanggye has come.' The nickname is the dearest I won't barter for anything."

This year she is 73 years old, and her husband passed away. Nevertheless, she is still putting in efforts to plant and cultivate nut pines together with her children and grandchildren.

Kim Son Myong



Family of Artists



THERE ARE MANY COMPETENT ARTISTS at the Korean painting production unit of the Mansudae Art Studio. Among them are Merited Artist Choe Yong Sik and his two sons Choe Kang and Choe Chol. They have created lots of distinctive and vivid masterpieces.

Choe Yong Sik has so far presented more than a hundred works at etude exhibitions and individual artistry presentations held under the auspices of the Central Committee of the Artists Union of Korea, and many of the works, including the Korean paintings *President Kim Il Sung's Birthplace at Mangyongdae in Spring*, *News of Spring in Woljong Temple*, *The Ryesong River in Early Morning* and *Hyangsan Village in Spring*, and the folding screen *Mt Kumgang in Four Seasons* were awarded certificates.

Recently he has created the folding screen *A Grand Flower Garden of Love for the People*, demonstrating his ability once again. With delicate colour, graceful composition and broad strokes, the work shows well the happiness of the Korean people who are enjoying themselves at the Mangyongdae Children's Camp, the Okryu Children's Hospital, the Central Zoo, the Yonphung Scientists Holiday Camp, the Masikryong Ski Resort and the Mirim Riding Club that have been built or renovated in recent years.

Choe was fond of drawing in his childhood. Once he drew a bird he had just seen so vividly, which surprised people. He began to learn the ABC of drawing at middle school. In his days at Pyongyang University of Fine Arts, he created fine works of pine trees and cranes, distinguishing himself among the students.

It was not merely thanks to his natural ability that he could become an artist of dignity in the circle of fine arts in the country like today. All his works are associated with his unusual meditation and effort.

In creating even a single work, he made scores of exercises and went round the country to find out vivid details. He is of the opinion that if one intends to create better works than others', one should meditate and walk more than others.

His tireless creative attitude is just inherited by his sons. His first son Choe Kang is being recognized as a promising artist by creating excellent works like the Korean painting *The Pothong River* ▶



▶ *in the Morning* and the landscape *A Scene of the Orangchon Power Station*. This is because he inherited his father's creative attitude. "I can't forget my father who travelled different rural places for several months to find out even a single detail," Choe Kang says.

His second son Choe Chol, who grew up under his stern father's education, has presented many Korean paintings including *The East Sea of Korea in the New Morning*, *Mae Rock in Mt Chilbo*, *Mt Jangsu in Summer* and *Okryudong in Autumn* to national art exhibitions, all of which were highly appreciated for his unique techniques. He is draw-

ing the attention of the art circle as he always creates novel works unique in composition and harmonious in colour.

"From my childhood, my father often told me that an artist without ardent love for the country could neither feel its beauty nor create a masterpiece. Now it has become the tradition of my artists' family," the second son says.

The father and the two sons are now engrossed in creating new masterpieces keenly feeling the reality of the country changing for the better day by day.

Sim Chol Yong

Choe Yong Sik is engrossed in painting.



Choe works together with Chinese artist Li Chen.



Popular Roast Chicken Restaurant

NOW MANY OF PYONG-nyang citizens think they should go to the Roast Chicken Restaurant in Changgwang Restaurant Street if they want to have roast chicken.

Some time ago I visited the restaurant in the centre of Pyongyang. When Changgwang Street was built in the 1980s, over 20 restaurants appeared on both sides in one section towards the Pyongyang Railway Station. The Roast Chicken Restaurant is one of them.

Yu Kum Sun, head of the restaurant, said that it is frequented by lots of people every day. Thinking the dish was popular thanks to its cooks, I met the head cook, who had experience in cooking various dishes as she worked in different restaurants on the street for over 30 years.

Explaining that their roast chicken was characterized by softness, pleasant taste and fragrance, she introduced me to Kang Yong Suk, who was said to be a leading cook in cooking roast chicken.

Kang has been specializing

in cooking the dish for over 20 years. She explained: To cook roast chicken well, chicken should be kept spiced and roasted properly. In particular, it is important to observe well the time of keeping it spiced. Because when the time is too short it will not be evenly spiced, and when it is too long it will lose its original flavour.

The restaurant uses natural aromatic spice like orange peel in cooking roast chicken so as to stimulate visitors' appetite, she said and added, "As I've done it very much, I am now able to sense all the processes of the job. I cook the dish every day as sincerely as I should do for my family."

At that time some people came into the restaurant. Among them were intellectuals—scientists, technicians and educators—who had taken part in a national academic degrees and titles awarding ceremony. They said they visited the restaurant to have a good time together there on the rare opportunity. There I met Jong Kang Ho, a

faculty head of Pyongyang University of Transport, who was awarded the degree of professor. He said that the restaurant was the best in cooking roast chicken and that the dish of the restaurant was really unique in taste.

I also met Kim Yong Mi, a worker of the Taedonggang Battery Factory and a customer of the restaurant. She said that good service of its waitresses seemed to add the taste of the dish.

In the visitors' book of the restaurant, I read the following: "Feeling kinship in the waitresses' good service, I had a meal comfortably like at home." and "I've been accorded hospitable treatment. Next time I'll bring my family. See you again."

The restaurant also undertakes invitation and mobile services for innovators in institutions and enterprises, Yu said.

The harmonious combination of the delicious dish and good service—this was the secret of the restaurant's popularity.

Rim Sang Jun

National Independence Secures Peace and Reunification

THE WILL OF THE KOREAN NATION IS growing stronger to write a new history of peace, reunification and prosperity on the Korean peninsula through national reconciliation and unity.

The nation wants to solve the problem of the inter-Korean relations on the principle of national independence. The reunification of Korea is the cause of realizing the sovereignty of the nation from A to Z, so any interference and obstructive moves of foreign forces are absolutely intolerable in this regard. The road the Koreans should always take is the one of independence and unity, that is, of *By our nation itself*, which makes it possible to reject foreign forces and join the will and efforts of the entire nation. This is the truth all the fellow countrymen learned in the struggle to carve out the destiny of the nation and reunify it in an independent way.

The nation's current growing desire for development of the north-south relations and national reunification requires that the nation, with concerted efforts and on the principle of national independence, should frustrate the obstructive moves of the anti-reunification forces at home and abroad, and open up a broad avenue to peace, prosperity and reunification.

The historic Panmunjom Declaration and September Pyongyang Joint Declaration adopted last year, which reflect the requirement and desire of the era, imbued the fellow countrymen with great hope of and optimism about a bright future of the nation. The declarations were those of national independence whereby the nation can decide on its own destiny and carve it out by its concerted efforts.

The Panmunjom Declaration clarifies issues of making an all-round and epochal improvement and development in the inter-Korean relations so as to reconnect the severed blood vessel of the nation and bring earlier the future of co-prosperity and independent reunification and of easing the acute military tension, substantially removing the danger of war and building a permanent and durable peace mechanism on the Korean peninsula. Thus it is a historic landmark signalling a new start of peace and prosperity on the peninsula.

The two declarations denote the nation's burning aspiration for reunification.

It is none other than the Koreans who keenly feel the tragedy of territorial partition forced by foreign forces and always yearn for reunification. Over 70 years have passed since the division of Korea. The Korean nation, however, has never forgotten about reunification even a day.

The Panmunjom Declaration and the September Pyongyang Joint Declaration reflected the Ko-

rean people's strong will to reunify the nation by re-linking the broken vein and territory of the nation and demonstrate its dignity and mettle to the world. And the declarations also show the nation's unanimous aspiration for reconciliation, unity, peace and prosperity, as the nation of the same blood that has lived on the same territory while creating time-honoured history and brilliant culture spanning 5 000 years.

The validity and vitality of the declarations have been proved in reality.

After the adoption of the historic Panmunjom Declaration, dramatic changes occurred in the inter-Korean relations. Multifarious dialogue and contacts took place between the north and the south in different sectors, and valuable successes for the future of peace, prosperity and reunification were gained, giving pleasure to the entire nation. Amidst this atmosphere the September Pyongyang Joint Declaration was adopted, which indicates practical measures to develop the inter-Korean relations onto a higher stage, realize stable peace on the Korean peninsula and further promote reconciliation and reunification. This made it possible to consolidate the already-achieved successes and accelerate the development of the inter-Korean relations on a new track of peace, reconciliation and cooperation.

And the declarations were anything but those adopted under the approval of anyone else. The Korean nation itself is the master of the inter-Korean relations. Therefore, all problems of the inter-Korean relations and reunification should be solved on the principle of national independence—this is the main spirit of the abovementioned declarations.

There will be no problem difficult to solve when the north and the south have a firm stand of national independence. Through the three rounds of the north-south summit talks and meetings last year the fellow countrymen keenly felt again that when they join their mind and strength, they can turn the Korean peninsula into the true home of the nation, which will be the most peaceful and prosper forever. The unforgettable scenes made during the period built up their confidence in the future of a reunified country.

The interference of foreign forces in the problems of the inter-Korean relations and reunification should never be allowed. The north and the south, on the principle of national independence, should join hands together and rely on the concerted strength of the nation, not foreign forces, so as to frustrate all sorts of obstructive moves of outside forces, and open up the road to national prosperity. All the Koreans should hold fast to the principle of

Blueberry Juice

The blueberry juice improves children's memory and concentration. According to some research the result of examination of word memorizing and concentration of those children who drank the blueberry juice was higher than those who did not. In particular, the score of those children who drank thicker juice was higher, and the amount of drinking at a time was about 1.5 teaspoonfuls. The secret lies in flavonoid which is a constituent of different kinds of fruits, berries and vegetables. Flavonoid promotes the blood circulation in the brain and accelerates the information transmission between cells. □

Milestone in Opening Avenue of National Reconciliation, Peace and Prosperity

IN SEPTEMBER LAST YEAR PYONGYANG witnessed the fifth north-south summit meeting and talks. At the talks the principle of national independence and self-determination was reconfirmed and an in-depth exchange of opinions was made on various issues arising in further accelerating the development of the north-south relations by honestly implementing the Panmunjom Declaration (or April 27 Declaration) in an all-round manner.

The talks reaffirmed the will of both sides to implement the historic Panmunjom Declaration to the letter and formulated important issues and detailed measures to be maintained in implementing the declaration and agreed on a series of immediate practical measures to be taken by the north and the south.

The north and south top leaders had an in-depth discussion of ways of steadily taking measures meeting the requirement of the era of reconciliation and cooperation and firmly guaranteeing the current development of the relations in the future, too, on the basis of the precious success and experience that dramatically changed the inter-Korean relations from those of extreme hostility and confrontation and brought about startling changes and fruitions through sincere efforts with the view and stance of pooling mind and intention and respecting and trusting each other.

The September Pyongyang Joint Declaration served as an important milestone in further accelerating the development of the north-south relations and ushering in a new golden age of reconciliation and unity and peace and prosperity of the nation by faithfully implementing the April 27 Panmunjom Declaration in full measure, as unanimously desired and demanded by all the fellow countrymen.

The September Declaration carries the spirit of the nation pulsating with a new hope, their burning desire and the dream of all the compatriots.

The historic Pyongyang meeting and talks marked an epochal watershed in consolidating the

valuable achievements gained by the north and the south in good cooperation and in opening the heyday of reunification by developing the north-south relations rapidly along the new road of peace, reconciliation and cooperation.

It is a steadfast stand and will of the DPRK to push the inter-Korean relations forward dynamically in the eye of the world and write a new history of peace, prosperity and reunification on the Korean peninsula. On the occasion of the 23rd Winter Olympics held in south Korea, the DPRK sent large-sized delegations including athletes, a cheering group, an artist troupe and a Taekwon-Do demonstration group to the south regarding the games as a festival of the compatriots worth sincere help, and thus gave a powerful momentum to improved inter-Korean relations and fuel to national reconciliation and unity.

Since the adoption of the historic Panmunjom Declaration the north and the south pushed dialogue and cooperation programmes in different fields, thus holding the 2nd round of the north-south high-level talks, general-level north-south military talks, north-south Red Cross talks and other talks in different fields successfully, leading to diversified contacts and exchange.

North-south basketball games for reunification took place in Pyongyang and Seoul drawing great public attention, and the north-south single team won in the mixed doubles of the Korea open table tennis games of the 2018 world meet of the International Table Tennis Federation. The north-south single team also performed well in a number of events at the 18th Asian Games held in Indonesia.

A reunion of separated families and relatives took place at the Mt Kumgang resort.

The 5th north-south summit meeting demonstrated that the Koreans will be able to open the road of improved inter-Korean relations and peace and prosperity on the Korean peninsula when they join their will and efforts.

An Nam Hui

under the banner of national independence.

The firm unity of all the Koreans will guarantee the development of the inter-Korean relations, peace on the Korean peninsula and independent reunification.

Kim Kwang Song

Watch Out for Japan's Military Scheme

JAPAN'S SELF-DEFENSE FORCES (SDF) are widening the scope of their military activities on a worldwide scale; they conclude agreements with foreign counterparts, do joint military exercises, and conduct overseas military activities under the disguise of ensuring "peace and security."

Last year there took place joint military exercises between the Maritime SDF and the UK's Royal Navy, and between the Ground SDF and the UK's Royal Army. And now the insular country is planning to conclude an agreement of good-will visit status with the British forces, and the plan has already been under examination. When the agreement is concluded officially, it is said, the SDF will get legal treatment at the time of a joint military drill in the territory of the counterpart.

Japan is also sending its troops to different regions. The SDF's moves of frequent occurrence are evoking due precautions among Asian countries, and others in different regions in the world. The Japanese reactionaries, however, are claiming that such kinds of activities are aimed at ensuring secure environment in their country and making a contribution to ensuring global peace in the front line as a member of the international community.

The SDF's military activities are part of the schemes for overseas expansion. This means the country is trying to realize its old dream of the "Greater East Asia Co-prosperity Sphere."

The overseas military actions of the SDF are being carried on in accordance with the national security law. The Japanese media commented that the SDF has become able to participate in the "international peace-keeping activities" thanks to the law. This means the insular country has become able to embark on the road of overt aggression.

The Japanese reactionaries, based on the superiority of military strength, are trying to control the neighbouring countries and to achieve the ambition of reinvasion. They have long raised the military expenditure systematically, and squandered a huge sum of money in developing and producing new armed equipment.

In December 2018 the Abe clique announced a newly-adopted defence programme and a midterm defence capacity maintenance programme. And having overtly revealed their scheme to increase the military expenditure drastically, they are now

giving spurs to its realization. Meanwhile, they are examining the plan of increasing the expenditure 1.3% by 2023, though it is not allowed to surpass 1% of GDP. Actually, it is a general view of the experts that the regulation of 1% of GDP as the military expenditure has long been eliminated.

Japan's Defence Ministry demanded that 5 257.4 billion yen should be spent as the military expenditure for the 2019 fiscal year, which is the remarkable increase as compared to the previous fiscal year. The unlimited expansion of the military expenditure made the SDF grow into huge aggression forces.

Not content with that the reactionary ruling circles of Japan are investing a colossal sum of money in introducing the ground-based missile defence system Aegis Ashore and the up-to-date fighters, and developing a next-generation radar system. They have intensively deployed the SDF in western Japan near the Northeast Asian countries, waging military drills time and again.

Now the country is conducting joint overseas military rehearsals with the forces of other countries. This is aimed at enhancing the SDF's operations capability and expanding its scope of activity, and honing the method of unexpected preemptive strike at the same time.

It is indisputable that the expansion of the SDF's military activities is aimed at reinvasion. It is a matter of time that Japan embarks on the road of aggression again. To this end the Japanese reactionaries are running amuck to instill militarism constantly into the people, and adopt a war constitution.

Abe and his clique are taking the lead in adding fuel to militarism. The Japanese politicians swarm to the Yashukuni Shrine to pay homage and offer tribute to it, and force the educational institutions to hoist Hinomaru and sing Kimigayo. This is all aimed at having the Japanese people take pride in the country's past history of aggression, sympathize with militarism and nurse feelings of revenge for its past defeat.

The Japanese reactionaries' schemes for reinvasion are destroying peace and stability in Northeast Asia and the world. Any country that wishes for regional peace and security should fix its eyes on Japan which dreams about war of aggression.

Kim Kwang Song

► national independence and pool their efforts to pioneer the road to independent reunification, peace and prosperity on their own initiative.

No obstructive moves of outside forces or challenges cannot check the Korean nation's vigorous advance toward peace, prosperity and reunification

Koguryo's Famous Commanders— Miru and Nyuyu

THE KOGURYO PEOPLE fought a war against foreign aggressors in the 240s. In February 246 tens of thousands of troops of an invader nation thronged as far as to the Piryu Stream availing themselves of their superiority in number despite wholesale deaths.

Tongchon, the 16th king (227–248) of Koguryo, mobilized infantry and cavalry to raid the enemy, thus killing and capturing more than 6 000 enemy troops. The king then began to be intoxicated with self-complacency.

He said, “The enemy’s large force is no better than our small one. The enemy commander is a famous general, but his life is now at my disposal.”

Underestimating the enemy, he had the armoured cavalry, 5 000 strong, attack the foe in front. This was his gross error.

As the saying goes that “He that slights his enemy dies by his hand,” his reckless attack ended in a bitter defeat. His troops dispersed. When it was difficult to gather soldiers, he had to retreat to Amnokwon (a plain area down the Amnok River) with only over 1 000 armoured cavalry soldiers. After taking the Hwando Fort, the then capital of Koguryo, the enemy continuously chased him. By the time he retreated to Namokjo (South Hamgyong Province at present), reaching Juk Pass, almost all his cavalry soldiers had dispersed and he himself was in danger. The enemy encircled and closed in upon them in order to capture him alive.

Then Miru, a general of Koguryo, entreated the king, “Your Majesty, I wish you would escape from here.” The general went on to say he would check the enemy’s advance.

The king, however, said, “No! How can I try to be alive alone when my mistake has caused

this adversity?”

“Your Majesty, it’s not right. It is a subject’s duty to give himself up for the sake of the country. But you’re in charge of the state affairs,” said Miru.

“Thank you. But how can I face the sky after I survive alone with all the subjects dead?”

“Your Majesty, subjects’ death will be worthwhile only when their country remains secure, so I wish you to escape soon so that the subjects’ death would not turn out worthless.” Now tears began to flow from the king’s eyes.

“Thank you, Miru. As there are loyal subjects like you, I believe Koguryo will never be ruined. I’ll leave here as you wish,” the king promised.

Miru ordered Ryuokku, one of his soldiers, to escort the king through woods to cross Juk Pass. And he, together with merely 20 to 30 soldiers, fought a hard fight frustrating the enemy in their plan.

At the news that Miru fell in battle, the king ordered Ryuokku to go and bring him even if he died.

Back to their camp on the back of Ryu’s, Miru gradually came to.

At the moment, Nyuyu and his party, who had got lost during a battle, got back to join the king. Thus the king’s party increased in number to some extent. But it was too small as compared with the enemy force that was in hot pursuit. When the king’s party reached Namokjo the enemy rushed in, putting the Koguryo king in danger again. At this juncture Miru entreated the king to escape saying he would lead a death squad to check the enemy.

Moved by his loyalty, the king said, “I won’t let you die. Don’t you have any idea to escape from the crisis safe and secure?”

Then Nyuyu proposed to take good dishes to the enemy commander and give a party before stabbing him.

Out of a doubt, the king asked, “Do you think you will be able to get away after stabbing the enemy commander in their camp?”

“The subjects and soldiers here will survive, then, I’m sure,” said Nyuyu.

“What? Wouldn’t you be sorry for your death?” the king urged.

“How could I feel sorry about my death when I know it will not be worthless?”

“Are you sure your death will not be worthless?”

“Your Majesty, please allow me to do what I propose. If a subject lays down his life to save his country from crisis, it will remain an honourable deed forever, I dare say,” Nyuyu replied.

Now the king raised him to his feet, embracing him, and said, “Your sacrifice will never be worthless.”

Nyuyu prepared and took a spread to the enemy commander.

Satisfied that Nyuyu, a famous general of Koguryo, had brought a spread to him, the enemy commander came up to the table. At the moment Nyuyu swiftly took a dagger from under a plate and stabbed the commander in the chest. Then he also got rid of some other commanding officers of the enemy before dying a heroic death.

Having lost their commanders, the enemy force was torn apart.

The king of Koguryo mobilized his government and local troops to destroy the enemy units one by one, thus changing the situation radically.

At last the Koguryo army recovered all the territory from the aggressors, and won the war.

Rim Ok

National Intangible Cultural Heritage (34)

Making of *Jang* (Soy Sauce and Paste)

JANG IS ONE OF THE condiments indispensable to the Korean people’s dietary habit. *Jang* is a general word meaning soy sauce, plain paste and peppered paste altogether. Soy sauce is used to flavour food-stuffs and soy paste is eaten as it is, or used to cook soup, and peppered paste is used as a special condiment to ensure a good appetite.

These soy condiments have a long history in Korea. So it is not fortuitous that there came into being such proverbs as “Sweet *jang*, sweet home” and songs of the condiments like the *Song of Bean Paste*.

In Kangso District, Nampho, Korea, there is the Tokhung-ri Mural Tomb from the period of Koguryo (277 BC–AD 668), and part of the inscriptions on its tombstone reads: The people mobilized to build the tomb consumed a store of soy condiments as well as white rice, meat and liquor.

According to the *Chronicles of the Three Kingdoms*, a speciality of Palhae (the late 7th century–the early 10th century) was the soybean malt of Chaeksong, and people of Silla (the early mid-first century–935) chose these condiments for wedding presents to be sent to the bride’s family.

The Korean ancestors, who had started bean-farming in the closing days of the primitive society, used boiled beans as feed for cattle, horses and other domestic animals in winter. When they found stray mouldy beans from the feeds, the animals turned to them, which aroused the people’s interest. Now the Koreans began to make boiled beans fermented to make such sauce and paste.

Beans, which have long been referred to as “meat” from the field, contain more protein than

any other kinds of grain. Boiled beans digest at only 70 percent, and bean-curd does at 90 percent. But the aforesaid bean-based condiments digest at almost 100 percent.

And the condiments produce a unique savoury taste which is known as the sixth taste adding to the original five tastes—salty, sweet, bitter, sour and hot.

In the past each family used to make such condiments in Korea, so the preparation methods and the tastes were different. And the nobility of a family depended on the taste of its condiments. So the Korean ancestors said that women were compelled to learn 33 methods of condiment making before they got married.

The following is the general method of making the condiments:

At the beginning of winter (in early November) put well-ripened beans in water for a day. Boil them perfectly and pound in a mortar. Then make it into balls 10 to 15 cm in diameter. Such a ball is called *meju* in Korean.

Wrap each of them in straw separately and hang them in a well-ventilated place at a certain temperature to dry with maltase

growing in them.

About March of the next year crush the dried balls, put the powder in a sterilized jar, pour salt water in the jar and leave the jar open to clean air and sunlight.

Two or three months later there comes black liquid in the jar. Pour it in a saucepan and boil to make soy sauce. And ferment the leftover in the jar to make paste.

Mix the paste with red pepper powder and other seasonings and ferment to make peppered paste.

The condiments contain various nutritional ingredients such as protein, sugar and minerals.

In particular, it has been scientifically proved that the paste is one of health foods that fight cancers.

At present relevant factories built across the country are producing *jang* in an industrial way, thus meeting the demand of the people.

The Korean people regard the condiments as the most important of the kinds, and the condiments are widely known as those symbolic of Korea’s national foods and dietary habit.

Kim Chol Hyon





A range of peaks in Outer Kumgang.

Mt Kumgang (7)

Outer Kumgang (6)

SONGNIM DISTRICT IN OUTER KUMGANG includes noted spots in the Paekchonchon Valley between Ilchul Peak, one of the central peaks of Mt Kumgang, and Janggung Peak.

In its valley there are magnificent and fantastic steep peaks beyond imagination, making the second in beautiful scenery to Sonchang Valley. It is divided into Songnimdong, Mansangdong and Songmundong.

Songnimdong is covered with beautiful pine forests all the year round, hence the name. There can be seen waterfalls and pools including Songnim, Kophum, Paekchon and Chongsong pools, Songnim Cave, Songnim Rock, the site of the Songnim Temple and Chima Rock. On the left of Songnim Pool, a typical one in Songnimdong, is a not so high cliff and on the right a rock as big as a house. And the bed of the pool is covered with white and long rocks. From of old the pool is well known as a noted spot

for its clear water and stone and its beautiful scenery. The surface of the big rock is inscribed with the words *Songnimjeilchonsok*.

Mansangdong, situated in the upper valley of Songnimdong, is a valley of myriad forms. On a sheer cliff of the valley are fantastically-shaped rocks like Pom (tiger) Rock and Mae (hawk) Rock, and waterfalls of various shapes like Hamnyu Falls whose clean water cascades down step by step round a tremendous white rock, Kodun Falls, Idan Falls and Mansang Falls and pools like Ryong, Pok-sunga and Mansang pools.

In Songmundong, one can hear the pouring sound of Sibi Falls like a downfall of water from the heaven, hence the name. There are Songmun, Segallae, Kori and Sibi waterfalls. At the entrance to the valley is Songmun Falls looking like a roll of silver thread falling down from its narrow throat and a round pool beneath the waterfall. Passing it one can see Segallae Falls whose three currents slide down along the rocky cliff before gathering in

▶ a place to flow down into the pool.

Kori (ring) Falls flows down round a fantastic rock that looks like a stone tomb before tilting in the shape of a ring and then gathering in a place under the rock to cascade down.

Next to Kori Falls is Sibi Falls, whose water from the valley between Chaeha Peak and Soban Height falls down zigzag twelve times along the southern cliff of Chaeha Peak, hence the name Sibi (twelve in Korean). To see the total view of Sibi Falls hundreds of metres high, one should stand in Unsondae and Puljongdae on a cliff opposite.

Unsondae district, situated in the southernmost part of Outer Kumgang, is divided into Ryongchondong, Hyoundong and Kuyondong. In Ryongchondong there is a site of Yujom Temple, one of four famous temples in Mt Kumgang. There are also big and small pools like Sonyon Pool and Panyadae on which scores of people can sit.

Hyoundong has scenic spots like Kuryong Pool, Ssanghwak Pool, Pari Falls and Unsondae looking like a rocky peak. On the top of Unsondae one can see a round and hollowed big rock standing cross-wise, and a pillar-shaped rock on one side. Unsondae looks like two palms facing each other with an enough space between them to hide only one person, hence the another name Unsindae. It is a famous place where one can enjoy a fine view of Outer

Kumgang.

In Kuyondong of the gourd-shaped valley there are many tilted waterfalls and pools, rocks of fantastic shapes resembling turtle, dragon and pheasant, fine views and beautiful plants.

In the valley there are Son Pool looking like a ship and Huinbidan (white silk) and Tujul waterfalls. The pool of fantastic shape is lined with tilted waterfalls on its upper and lower sides, adding to the scenery. It is also called Outer Sondam to be distinguished from a pool of similar name in Inner Kumgang. The aforesaid two waterfalls look like a roll of silk hanging down and two lines of pearly drops, hence the name Huinbidan and Tujul. In the surrounding area there are growing tall alpine rhododendrons.

In Kuyondong there is Mangyong Valley of beautiful scenery. Its bottom is covered with white millstone-shaped rocks going well with forests at the brook. Its right side is surrounded with a steep rocky wall, where there is Kuryon Falls whose water falls down in nine currents when there is much water but in two when there is little water. Above the waterfall is Kuyongyejol Falls whose whole rock face is all covered with falling water, making a spectacular sight after it rains so much.

Pak Thae Ho

