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Front Cover: On March 8 International Women's Day

Photo by courtesy of the KCNA



Back Cover: Rhododendron blossoms in the snow

Photo by Song Tae Hyok

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Kim Jong Un, general secretary of the Workers' Party of Korea, guides the Second Plenary Meeting of the Eighth Central Committee of the WPK in February 2021.

Second Plenary Meeting of Eighth Central Committee of WPK Held

THE SECOND PLENARY MEETING OF the Eighth Central Committee of the Workers' Party of Korea was held in Pyongyang from February 8 to 11, Juche 110 (2021).

Kim Jong Un, general secretary of the WPK, presided over the meeting upon authorization of the Political Bureau of the WPK Central Committee.

Prior to the discussion of the agenda items, the General Secretary referred to the main purport of the convening of the plenary meeting of the WPK Central Committee.

Saying that the Party Central Committee

should powerfully lead the masses to the implementation of the decisions made at the Eighth Party Congress by nurturing the heightened enthusiasm of the masses who have sympathized with the idea and spirit of the congress, he stressed the need to provide Party organizations and members with practical means of innovation which would help bring about substantial change and progress from the first year of the five-year plan.

As the decisions made at the Party congress are mid- and long-term tasks to be fulfilled by different sectors concerned during the coming five years, he said, it is necessary for the plenary meeting to ex-

amine the plans for this year in detail and fix and issue them as the decisions of the Party Central Committee. He expressed the determination and will of the Party Central Committee to take important measures to push ahead with economic construction and provide the people with stabler and improved living conditions despite the continuous emergency infectious disease prevention situation, in particular.

Underscoring the need also to make a serious study of a series of issues arising in thoroughly overcoming negative elements hindering socialist construction at present, further consolidating the Party organizationally and ideologically and enhancing the militant functions and role of Party organizations, he proposed agenda items to be discussed at the plenary meeting.

The items brought up before the plenary meeting were adopted with unanimous approval.

1. On carrying out the first year's tasks of the five-year plan set forth at the Eighth Party Congress

2. On waging more intensive struggle against anti-socialist and non-socialist practices throughout society

3. On modifying the collection of the slogans of the Party Central Committee

4. On the deliberation of "Explanation of the Rules of the Workers' Party of Korea"

5. An organizational matter

The plenum discussed the first item. The General Secretary delivered an important report on the first item "On Carrying Out the First Year's Tasks of the Five-year Plan Set Forth at the Eighth Party Congress."

He, in the report, first referred to the need to properly organize the economic work of the first year for implementing the new five-year plan for the national economic development.

Saying that the first-year work is very important in attaining the new long-term goal decided on by the Eighth Congress of the WPK, he noted that the five-year plan can be finally accomplished with confidence only when the first-year plan is properly set up and fully implemented.

The new five-year plan requires a new start apart from all those old and out of date and all the people in the country are now watching how the

work for implementing the decisions made at the Party congress starts and what kind of change is being made, the report stressed.

In order to successfully do this year's work decisive of the result of the implementation of the decisions made at the Eighth Party Congress, the plan which is its operational map and a blueprint should be set up in an innovative and effective way and the entire Party, the whole country and all the people should wage a vigorous struggle for its implementation.

Noting that the idea and policy of the Party congress are not properly implanted in the proposed plan for economic work for this year and that no innovative viewpoint or clear tactics are to be found in it, the report raised a sharp criticism over the work of several sectors that markedly showed such tendencies.

The General Secretary, in the report, referred to the need to map out plans efficiently for expanding production capacity and foundations when organizing economic work for this year.

All sectors of the national economy should build new production bases for production growth in the future, upgrade the backward and outdated production processes and reinforce necessary processes so as to step up the work of expanding production capacity while pushing the current production.

As suggested in the main tasks of the five-year plan, it is essential to press ahead with the nationwide work of focusing investment on the metallurgical and chemical industries, regarding them as key links in the whole chain of the national economy, and consolidating the material and technical foundations of the agricultural sector in a planned way from this year.

A scheme is also needed to concentrate efforts in an accurately-targeted method on projects that are urgent to us and in which ten achievements can be made from one success.

Stressing that the nationwide, planned and scientific self-reliance requires special priority and should be applied in an innovative way in economic work, the report said that although this year's plan mentions preferential supply of materials to the major sectors of the national economy, state supply measures have been taken for only a few of them.

▶ Noting that the Cabinet and the State Planning Commission should make quick switchover to the work system of fully meeting the demand by taking centralized and unified control of products from all sectors of the national economy and businesses and establishing production-consumption relations, the report underscored the need to intensively provide labour, equipment, materials and funds to businesses of key industry sectors and the only factories of the relevant kinds in the country, take nationwide encouraging and preferential steps and take detailed measures to substitute domestic products for imports.

The General Secretary, in the report, called for attaching importance to talents in organizing economic work for this year and paying special attention to bringing up talented scientific and technical personnel, management personnel and Party officials in every sector.

The knottiest problem in propping up the national economy now is the shortage of talents and it is an urgent task to bring up new-type talents at present when it has been decided to make a bold innovation in all work.

Changes should be made in the work of bringing up talents first to make substantial changes in Party, state and economic work and the people's living.

The report said that all sectors and units should regard it as an important task in the five-year plan to bring up able scientific and technical personnel, administrative personnel and Party officials who can shoulder each field of the country in the future and push it in a planned way. To this end, all sectors of the national economy should meticulously organize the work on the principle of bringing up talents necessary for their sectors by themselves, and leading economic officials should hold fast to it as an important methodology to find talents first and rely on them in taking stock of the actual situation of their own sectors and exploring the ways for improvement.

It should be the working attitude and traits common to all officials to boldly appoint talents, bring them up in practice and put them forward before the Party and state with a viewpoint that no work can be carried out, to say nothing of the decisions of the Party congress, without having talents



in hand and bringing them up, the report added.

It stressed the need to find out and intentionally bring up talented management personnel excellent in conceiving ideas and in organizing, managing and controlling power, and train Party officials proficient in work with people.

The General Secretary, in the report, put important emphasis on intensifying the struggle for ▶

▶ putting an end to units' claiming of their special importance and self-centredness across the whole Party, state and society when conducting the first year's work for implementing the decisions of the Party congress.

The report said that misuse of power, bureaucratism and irregularities and corruption are anti-Party and anti-people acts committed by individu-

als, whereas units' claiming of their special importance and self-centredness are graver anti-Party, anti-state and anti-people acts perpetrated under the veil of unit and organization, stressing these are the biggest obstacle to applying the Party's people-first politics and consolidating the nation's own strength or the internal driving force.

It specially mentioned that the practices of ▶

► units' claiming of their special importance and self-centredness which infringe on the interests of the state and people and neglect the implementation of the decisions and instructions of the Party must not be allowed to go at large any longer but be stamped out resolutely by mobilizing Party authority and legal and military powers.

It expressed the determination of the Party Central Committee to regard units' claiming of their special importance and self-centredness as the enemy to the revolution and state tantamount to the misuse of power, bureaucratism and irregularities and corruption and to wage an all-out war against them with the plenary meeting as an occasion, and called on all Party organizations, political and state organs and all the people to be the main force in the war for wiping out units' claiming of their special importance and self-centredness.

In the report the General Secretary pointed to the necessity to organize economic work for this year in the direction of demonstrating the potential of self-supporting economy and stabilizing the people's living to the maximum while strictly maintaining the state emergency infectious disease prevention discipline.

He then suggested the tasks facing the sectors of the national economy for this year.

The report suggested key tasks to be carried out this year by main industrial sectors such as metal, chemical, power, coal, development and exploitation of natural resources, machine and forestry in reinforcing production foundations while conducting ongoing production, and specified detailed ways to fulfil them.

Importantly stressed was the issue of pushing the improvement of the railway situation with the focus of this year's work put on adjusting and reinforcing railways in the sector of rail transport.

The report suggested the tasks of conducting on an extensive scale the construction of major projects including the unconditional construction of dwelling houses for 10 000 families in Pyongyang and finishing of infra-network project as planned as well as local construction and of accelerating the expansion of the cement production capacity and meeting the demand for various building materials in a responsible manner in the sector of construction and building materials industry.

In the report the General Secretary underlined the need for the light industrial sector holding a big share in solving food, clothing and housing problems for the people to tap all potentials and to increase to the maximum the production of consumer goods and light industrial goods. He set it as the central part of the work for this year to ensure domestic production of raw materials, recycling, recovery of original performance of equipment, creation of new production capacity, and invigoration of local industry and the General Bureau of the Tanchon Area Mining Industry.

The report stressed that it was decided to spruce up local industrial factories in Kimhwa County of Kangwon Province this year to implement the line of strengthening cities and counties set forth at the Eighth Congress of the Party and to set a new standard of local industrial factory. The report proposed assigning the task of taking measures for this to the Cabinet, the State Planning Commission and the Ministry of Light Industry.

In addition, it suggested the tasks for the fisheries sector to put emphasis on strengthening its material and technical foundations and actively carry out fishing, aquaculture and fish farming so as to bring substantial benefits to the people this year.

The report also detailed the major tasks to be carried out this year by the fields of commerce, communications, land and environment, city management, external economic relations and tourism.

The General Secretary, in the report, stressed the need to unconditionally carry out the plan for agricultural production for this year.

The report called upon the agricultural guidance organs including the Ministry of Agriculture to map out a foresighted plan for farming and, in particular, to take measures for coping with the disastrous climate in a scientific and realistic way, stressing the need for the agricultural sector to steadily lay the foundations for stable and sustained development for increased grain output by thoroughly fulfilling this year's plans for cereals production and procurement.

It suggested tasks for breeding high-yielding varieties to increase the per-hectare yield, expanding the area for cultivating them, decisively increasing the fertility of soil, ensuring the scientific ►

► cultivation method for each farming process in line with the features of each variety and mapping out and pushing ahead with a detailed plan for making the low-yielding fields fertile before farming season.

It called for promoting in a planned way the work for laying material and technical foundations of units producing tractors and other kinds of farm machines, pushing forward the restoration of irrigation systems and facilities and the expansion of the irrigated areas, accelerating the reclamation of tideland, cultivation of new land and land realignment and increasing the production of livestock products, vegetables, fruits and industrial crops.

It dealt with issues of supplying farming materials on which success or failure of this year's farming hinge in a responsible manner on a nationwide scale, stamping out the practices of making an exaggerated report in the agricultural sector, and bringing about a decisive improvement in the work of rural ri Party committees.

The General Secretary, in the report, referred to the tasks to be fulfilled by the field of science and culture.

The report emphasized the need for the scientific and technological field to smoothly solve technological problems arising in consolidating the existing economic foundations and putting production on a normal track this year, and the matter of identifying all scientific and technological talents in different sectors, regions and units, while taking practical steps for improving the qualifications and levels of scientists and technicians.

It said that the secondary educational sector should establish a rational educational system for bringing up reserve scientific and technological talents in a planned way and that universities should train more scientific and technological talents including experts on IT, biological engineering, chemistry and materials.

Important tasks were also suggested to be carried out by the public health sector in order to bring about a remarkable improvement in it this year.

The sector should direct primary efforts to decisively eradicating different kinds of contagious diseases, build new public health facilities and promote as scheduled the construction of pharmaceutical, medical appliances and medical supplies ►

factories now underway.

The report roundly exposed the real state of art and literature still in stagnation and hibernation and called for bringing about a step forward in creation activities as required by the reality that has entered a new period of turn.

Tasks were suggested for the mass media to wage a vigorous media campaign aimed at inspiring the masses to the implementation of the decisions of the Eighth Party Congress, and for the field of physical culture and sports to organize a variety of sports events and conduct brisk mass sports activities.

The report stressed the importance for the People's Army and the munitions industry and the sectors in charge of south Korean and external affairs to thoroughly achieve and carry out the fighting goal and plans for this year for implementing the decisions of the Eighth Party Congress without an inch of deflection.

The General Secretary, in the report, made special reference to the tasks for improving economic work in an innovative way by decisively enhancing the functions and role of state economic guidance organs.

What should be done immediately at present is for the Cabinet and state economic guidance organs to improve their guidance over and management of the overall economy by restoring the functions peculiar to them as economic organizer and their controlling functions.

These organs should emerge from force of the old habit of sitting helplessly, only complaining about bad conditions and lack of authority, and actively wage a bold campaign for overcoming economic difficulties and obstacles.

It is important to remove stumbling blocks to economic development and make sure the economy of the country is smoothly managed by improving the role of the non-permanent economic development committee.

The report stressed the need to make every process dovetailed from the planning stage, pay attention to promoting organic relationship and cooperation among economic sectors, thoroughly reject the evasion of responsibility and self-centredness existing in state economic guidance organs and overcome obstacles and difficulties while actively ►

▶ supporting and complementing each other purposefully and actively.

It is important to establish strict discipline in planning and critically review the results of production in order to organize and command economic work in an efficient way.

It is necessary for the Cabinet and state economic guidance organs to make exact demands on all production units while providing them with necessary conditions so that they can unconditionally carry out their plans for production and supply of materials, and to conduct an intensive struggle against such phenomena as bargaining and defaulting on plan discipline and observing it for mere form's sake.

The report also set forth tasks for the Cabinet and state economic guidance organs to boldly conduct the work for improving economic management methods.

In improving economic management methods, it is necessary to attach importance to finding out and adopting the methods of the state's unified and numerical control and distribution of all products and imported materials.

It is necessary to properly combine political, economic and technical, and administrative and organizational methods in order to settle the issue of economic management in the nation's own way in line with the nation's own situation.

The General Secretary, in the report, repeatedly emphasized the need for officials in the economic field to decisively enhance a sense of responsibility and role.

Saying that the expectations of the Party and people about leading economic officials are very high at the present starting point towards the five-year plan and the reality calls upon all officials to work with redoubled efforts beyond the limitation of their level, ability and potentiality, the report called upon the officials to display mental power and fighting spirit to make a staunch dash toward the future and terminal of the five-year plan while always looking far into the future.

The General Secretary, in the report, set forth the tasks for guaranteeing the fulfilment of the national economic plan by law.

Saying that nobody has a right to bargain over the national economic plan and that everyone has

only a duty to unconditionally carry it out as it is the instruction of the Party and law of the state, he stressed the need for the judicial sector to set it as the core task to provide a powerful and thorough legal guarantee for the national economic plan for this year and thoroughly carry it out.

He pointed to the necessity to concentrate Party efforts on the fulfilment of the tasks for this year.

The report attributed the serious mistakes made in attaining the goals of the five-year strategy for the national economic development set forth at the Seventh Party Congress to the misguidance by Party committees at all levels over economic work and the failure of Party officials to fulfil their responsibility and role as organizers and standard-bearers in implementing Party policies.

The report mentioned the matters of principle to be maintained in intensifying the guidance of Party organizations over economic work for this year.

Party organizations should thoroughly overcome formalism in shaping and adopting Party decisions for implementing the line and policies of the Party.

Decisively parting from the old way of running Party meetings, they should discuss and adopt Party decisions for carrying out the tasks set forth in the present plenary meeting in line with the intention of the Party Central Committee, will of the masses and actual conditions of their units so that their implementation can be guaranteed and responsibility can be attributed.

After adopting Party decisions, it is necessary to grasp and review the implementation of the decisions on a regular basis in order to increase strong points and successes and correct faults and deviations.

The report called upon Party organizations to play the role of steering wheel in providing efficient political guidance for the successful implementation of the economic tasks for this year.

The steering role of Party organizations in carrying out the national economic plan is, in essence, to most correctly illuminate the way for ensuring satisfactory economic work as required by Party policies and properly guide it not to deviate from them.

Party organizations should find out correct ▶

▶ methods and map out detailed plans for perfectly carrying out the national economic plan for their units, positively push ahead with the work to make sure that administrative and economic work is done as required by Party policies and correct the mistakes and deviations in time.

The Party committees should intensify brainstorming and help their members enhance their responsibility and role to skilfully overcome obstacles and difficulties in carrying out the national economic plan and in particular, leading officials of Party organizations should do away with subjective and arbitrary practices and fulfil their duty as the political educators and standard-bearers who arouse the masses to implementing the policies.

Party organizations should regard a monthly production review as a Party meeting of summing up the fulfilment of Party decisions, not just a business-like review of the fulfilment of the national economic plan, and hold it to be of political significance and make it a good opportunity in awakening officials and producer masses, raising their competitive spirit and generalizing advanced experience.

The report said that it is very important to heighten the role of the Party organizations of the Cabinet, ministries and national agencies in successfully carrying out the economic tasks for this year, and set forth relevant tasks.

Once Party policies are laid down, the Party organizations of ministries and national agencies should effectively conduct the organizational and political work for implementing them and positively back administrative and economic officials with a stand of taking full responsibility for the results of execution.

They should steadily awaken officials by conducting intensive educational and ideological campaign for overcoming such negative phenomena as the one of not devoting themselves to implementing Party policies and of failing to boldly do the work while complaining about poor conditions, being seized by defeatism and self-protectionism.

Concluding his three-day report, the General Secretary said that the plenary meeting was convened in an appropriate and necessary period in the sense that it helped rectify mistakes from the

stage of planning a year's work and newly decided on the great work for the people and that it helped find out and correct ideological maladies including passivism and self-protectionism latent in officials.

Expressing the expectation that every member of the Party central leadership body would correctly confirm the work plan for this year through consultative meetings of panels, he called for making the plenary meeting a significant occasion of giving greater confidence and courage to all members of the Party and other people who turned out to implement the decisions made at the Eighth Party Congress.

His important report full of absolute confidence in the justice of the socialist cause, spirit of boundlessly serving the people and strong will to win a fresh victory of the revolution serves as a great militant banner for bringing about a new upsurge and change in socialist construction.

The plenary meeting heard speeches on the first agenda item.

Referring to the fact that the General Secretary, in his important report, comprehensively set forth the tasks of struggle for the entire Party and all the people for this year, the speakers deeply analysed and pointed out mistakes of not properly applying the idea and spirit of the Party congress from the stage of mapping out the plan.

They expressed their firm determination to set the militant goal for the first year in an innovative and scientific way by bringing about a fundamental innovation in their ideological view and work style in order to repay the great expectations of the Party and people and staunchly put it into practice and thus fulfil their responsibility in the struggle for implementing the decisions made at the Party congress.

The speakers pledged to conduct a dynamic legal struggle for carrying out the five-year plan and defending the socialist economic system and powerfully propel the implementation of the decisions made at the Party congress and this year's tasks as a Party and political work by turning the whole Party into an integral whole of loyalty upholding the leadership idea of the Party Central Committee with sincerity and devotion.

Consultative meetings of different panels for drafting the resolution for the first agenda item ▶

► were held at the plenary meeting.

The consultative meetings, divided into the industrial, agricultural, light industrial and construction panels, deeply studied the contents of the report made by the General Secretary and discussed in depth how to work out plans of different sectors for this year guided by the report.

New reserves and possibilities were actively explored and creative and constructive suggestions were made for innovating the work of different sectors amid earnest speculation and efforts, and the targets that were submitted earlier were upgraded as a whole.

At the plenary meeting, there was a report which put together supplementary suggestions made during the process of drafting a resolution at the consultative meetings of different panels.

The draft resolution drawn up through the consultative meetings was acknowledged as correctly embodying the strategic tasks and policies of the Party congress and fully reflecting the scientific accuracy, feasibility and dynamism of this year's work direction and targets for different sectors.

The plenary meeting unanimously approved the resolution on the first agenda item "On carrying out the first year's tasks of the five-year plan set forth at the Eighth Party Congress."

The second agenda item "On waging more intensive struggle against anti-socialist and non-socialist practices throughout society" was discussed at the plenary meeting.

Kim Jong Un made a report on the second agenda item.

Stressing that the Korean revolution, which has entered a new development stage, strongly calls for more intensified struggle against the anti-socialist and non-socialist practices than ever before, the General Secretary, in his report, clarified his revolutionary will and determination to definitely remove the vicious cancer that threatens the existing ideology and social system and hinders single-minded unity.

The report suggested tasks for Party organizations, working people's organizations, government organs and law enforcement institutions to powerfully wage the struggle against anti-socialist and non-socialist practices.

The report noted that powerful combined head-

quarters should be organized ranging from Pyongyang to provinces, cities and counties so that they could grasp the actual conditions of the struggle against anti-socialist and non-socialist practices in a unified way on one and the same principle and powerfully carry it out in an intensive and diverse way.

It specially stressed the need for Party organizations to intensively carry out the operation for overcoming abuse of power, bureaucratic behaviour and irregularities and corruption among the officials and also definitely remove from the ranks of officials those who connive at and foster anti-socialist and non-socialist acts.

It is necessary to set the urgent settlement of the economic management problem as a very important task for defending the socialist character of the state and rooting out the anti-socialist and non-socialist practices, and solve the problem step by step in a strict and resolute manner.

The General Secretary, in his report, said that all officials should clearly bear in mind that low-keyed struggle done only in words will never end anti-socialist and non-socialist practices and that if so, they themselves and the people might be compelled to pay a dear price. He stressed the need for the officials to fulfil their responsibilities and duties in the struggle for mercilessly curbing and stamping out anti-socialist and non-socialist acts found in their own sectors and units and for consolidating Korean-style socialism in order to protect the destiny of the country, people and younger generation.

The resolution on the second agenda item "On waging more intensive struggle against anti-socialist and non-socialist practices throughout society" was adopted with unanimous approval at the plenary meeting.

The third agenda item "On modifying the collection of the slogans of the Party Central Committee" was discussed at the plenary meeting.

The plenary meeting recognized that as the collection of the slogans of the Party Central Committee was modified with political slogans intensively reflecting the line, strategy, tactics and political doctrine which should always be held fast to by the Party, it would fulfil its mission as an ideological weapon for defending the idea, immortal ►

► revolutionary exploits and absolute prestige of the leader, safeguarding the revolutionary character of the Party and victoriously advancing the socialist cause, and adopted a decision on making the modified collection the one of the slogans of the Party Central Committee.

The plenary meeting discussed the fourth agenda item "On the deliberation of 'Explanation of the Rules of the Workers' Party of Korea'".

The plenum deliberated on the fifth agenda item "An organizational matter."

The General Secretary concluded the plenary meeting.

Saying that the Second Plenary Meeting of the Eighth Party Central Committee successfully finished the discussion on all agenda items presented, he expressed thanks to the members of the leadership body for sincerely attending the discussion on Party and state work, always keeping themselves tense and prepared throughout the past four days. He noted that it is a manifestation and expression of their will to perform their heavy duty entrusted by the times and the revolution by solemnly and thoroughly fulfilling their pledge made before the people.

He said that every agenda item discussed at the plenary meeting is of special significance in strengthening and developing the revolutionary work and the Party and that clear recognition of important and urgent immediate tasks was shared and definite directions were confirmed.

He pointed out that the plenary meeting provided a strong policy weapon with which to prevail over and eradicate the internal negative factors hindering the existence and development of the socialist system, and a political means of equipping and rousing the whole Party.

He said that through the plenary meeting, the Party Central Committee came to further refine its leadership art of finding correct solutions to problems and submitting and directing everything to them, and to gain precious experience.

He also appreciated that the plenary meeting showed the people, who value the Eighth Party Congress, the firm will of the Eighth Party Central Committee to translate the epoch-making tasks decided at the Party congress into reality without fail by mapping out detailed and practical plans.

Now that they have gone through another requisite and excellent course of development, he said, the Party Central Committee should provide correct guidance over the decided tasks and carry them through, thus achieving progress in the revolutionary work and making the people feel the changed reality.

Stressing that officials of every sector and unit should bear in mind that to ensure perfection in emergency infectious disease prevention effort tops important tasks for this year, remain strict and consistent in the infectious disease prevention effort and rapidly cope with all the circumstances, the General Secretary took new measures to make the state emergency infectious disease prevention headquarters keep the highest tenseness and vigilance and establish strong infectious disease prevention discipline throughout the country.

Noting that the Party Central Committee has made preparations in a far-sighted way from long ago to provide the people with more bountiful and happier life and give impetus to the readjusting, reinforcing and independent development of the national economy, he expressed his expectation that with the plenary meeting as an occasion, substantial changes would be made in the working attitude and way of work of leading economic officials, and took decisive measures which would guarantee the implementation of the new five-year plan.

Calling on all the members of the Party central leadership body to value the decisions of the plenary meeting as their life and make every effort for their unconditional and thorough implementation, he said it is time for them to undergo test over their loyalty before their beloved people. He earnestly asked all the comrades to turn out as one in the revolution for translating into practice the grand fighting programme of the Party by making redoubled efforts.

The Second Plenary Meeting of the Eighth Party Central Committee guided by Kim Jong Un was a historic meeting which showed more clearly the revolutionary features of the WPK, which is constantly struggling and making innovations, and gave a strong impetus to the all-people grand march for implementing the decisions of the Party congress. □

Kim Jong Un Sees Lunar New Year's Day Performance with Party Central Leadership Body Members



GENERAL SECRETARY KIM JONG UN of the Workers' Party of Korea saw the lunar New Year's Day performance on February 11, Juche 110 (2021) together with members of the Party central leadership body.

The performance was given by the artistes of the State Merited Chorus and major art troupes.

The performers sang highly of the greatness of the Party which has confidently led the Korean revolution along the straight path of victory in the face of grim hardships and challenges.

Resounding through the theatre were famous pieces of music in the era of the Workers' Party, which showed deep reverence for Kim Jong Un who is making a new history of a dignified powerful country with the people-first politics full of warm loving care for and devotion to the people and reflected the wholehearted loyalty of the people who are determined to greet all victories and glory on

the road of trusting and following the Party alone.

Seeing the performance filled with paeans to the great Party, the audience keenly realized once again the truth that the country and people have quite a bright future whatever hardships and difficulties may arise in the way of their advance as the General Secretary leads the Party and revolution.

The performance climaxed with orchestra and male choruses *We Will Go On along the Road of Loyalty* and *We'll Travel One Road Forever*.

When the performance was over, the General Secretary mounted the stage and thanked the performers for warmly congratulating the success of the plenary meeting of the Party Central Committee while showing absolute support for the revolutionary line and idea of the Party with excellent performance. He had a photo taken with them. □



Kim Jong Un has a photo taken with the participants in the lunar New Year's Day performance after seeing it in February 2021.

Appeal to All Working People Across the Country



The workers of the Hwanghae Iron and Steel Complex held a rally to affirm their commitment to carry out their first-year tasks of the five-year plan true to the spirit of the Second Plenary Meeting of the Eighth Central Committee of the Workers' Party of Korea, and adopted an appeal to all other working people across the country in February 2021.



By Dint of Scientific Self-reliance

IN THE DEMOCRATIC People's Republic of Korea all sectors and units of the national economy are bringing about a great improvement in production by dint of self-reliance based on advanced science and technology.

The sectors of the coal and power industries are developing and employing advanced science and technology with their own efforts and technical forces.

Researchers of the Academy of Coal Science under the Ministry of Coal Industry successfully developed a flexible starter for coal-carrying conveyor belts and introduced it in many coal mines, making a great contribution to invigorating the production. And the researchers and shop-floor technicians pooled wisdom to develop and introduce a new-type continuous wet concrete gun that can help make pits permanent.

The researchers also succeeded in making the oil feeder of compressed-air rotary drills from local materials and introduced it in many coal mines.

Coal mines across the country, too, are increasing coal production by pooling their own efforts and technical resources.

Miners of the Inpho Youth Coal Mine of the Pukchang Area Youth Coal-mining Complex are continuously increasing production by solving sci-tech problems, including the making of V-shaped iron props and that of a bent scraper-conveyor, in cooperation with technicians.

The Ryongdung, Ryongmun and Ryongsu coal mines of the Kujang Area Coal-mining Complex are raising the speed of tunnelling and coal cutting

rate by introducing advanced methods.

Those of the Suncheon Area Youth Coal-mining Complex, the Tokchon Area Coal-mining Complex, the Anju Area Coal-mining Complex and other similar complexes are increasing production through a vigorous technical innovation campaign involving the producer masses.

The sector of the power industry is also increasing power production by relying on advanced science and technology.

Researchers of the Power Industry Institute have achieved a lot of success in research into and introduction of new technology. For example, an integrated production management system has been established in hydroelectric power stations, and a technology of using high-temperature air to stabilize the combustion of pulverized anthracite introduced in thermal power stations. In particular they have introduced the integrated production management system in newly built power bases, succeeded in making a device for raising the stability of power production from local materials and completed a research into a flexible AC transmission system.

Officials of the Ministry of Electric Power Industry and technicians and workers of the Pyongyang Thermal Power Station are pooling efforts to develop a kind of material as a substitute for asbestos necessary for keeping boilers warm and introduce it in thermal power stations across the country. The officials have also introduced in the Suncheon Thermal Power Station an automatic combustion control

system based on oxygen concentration analysis, making it possible to raise the output of each generator there.

The East Pyongyang Thermal Power Station is ensuring normal operation of generating equipment and increasing power production by solving sci-tech problems arising in establishing fireproof material and fireproof cement production lines, transforming the heat-treating furnace and making a vacuum tank. It succeeded in using locally available raw materials to produce water glass necessary for keeping equipment warm and quality fireproof materials.

Minor power plants across the country, too, are increasing production.

The North Hwanghae Provincial Minor Power Stations Management Bureau is putting primary efforts into the technical upgrading of generating equipment and scientific control of water.

Efforts are being made to make effective use of energy resources.

The Nampho Municipal Designing Institute, Nampho University of Fisheries, Nampho University of Education, Nampho Technical College and many other units in Nampho are using highly efficient solar panels to satisfy their demand for electricity.

The increased production in the sectors of the electric power and coal industries is invigorating the overall national economy and helping further consolidate the foundation for the improvement of the people's living standards.

Sim Hyon Jin

Harnessing of Renewable Energy Propelled

IN THE DEMOCRATIC People's Republic of Korea they're making positive efforts to increase electricity production by developing renewables.

Some time ago a *Korea Today* reporter had a talk with Kim Yong Chol, a bureau director of the Ministry of Electric Power Industry, over the relevant matter. Excerpts:

It is a current global trend to produce electricity using natural energy sources, I think.

You're right. Today it is an urgent matter to cut carbon dioxide emissions that cause climatic change. According to experts, the concentrations of carbon dioxide in the air might exceed 1 200 ppm toward 2104 unless relevant measures are taken at present. Carbon dioxide concentrations of 1 000 ppm to 2 000 ppm may remove clouds and raise the temperature by 8°C at the maximum.

Now all people in the world are constantly feeling the seriousness of climatic change: heatwave, large-scale forest fire, heavy rain, flood and typhoon. If things last this way humanity

might be faced with a destructive situation—a temperature rise of more than 3°C. For this reason the international community is regarding active use of renewable energy as one of the important ways to reduce carbon dioxide emissions.

I think the relevant work has been done briskly in your country for a long time.

Since its liberation from the Japanese imperialists' military occupation on August 15, 1945, my country has made efforts to develop and use natural energy as a state concern and with state assistance. In particular, water-power resources have been developed and used in a planned way.

In the recent five years, for example, 40 minor hydroelectric power stations have been built including Hungju Youth Power Stations Nos. 3 and 4, Ryesong-gang Youth Power Stations Nos. 3 and 5, Hamhung Youth Power Station No. 1 and the Ichon Army-People Power Station. And the construction of large-scale hydropower stations such as the Paektusan Hero Youth Power Station has been pushed ahead with, making it possible to increase the proportion of electric-

ity produced by means of water power.

Besides, solar energy, wind energy and biomass energy have been harnessed to generate electricity.

As a result, about 70 percent of electricity now comes from renewables.

The development of natural energy in the country is under way in close combination with the development of science and technology, I think.

Right. We organize sci-tech achievements exhibitions and festivals for the development and use of renewable energy as well as for energy saving. This is leading to making the relevant science and technology mass-based.

And achievements and experience in the development of renewable energy are exchanged and disseminated across the country. This has resulted in the invention and introduction of many things including a distributed renewable energy integrated system and a water-wheel water pump as gravity-fed pumping equipment. □

Electric Power Management Gets Upgraded

THE ELECTRIC POWER IT INSTITUTE under the Ministry of Electric Power Industry is accelerating the research aimed at making the central power supply control IT-based and scientific.

Previously the institute developed and put into operation the national integrated power management system which can rationally adjust the balance between production and demand. On the basis of the success and relevant experience the institute is conducting the research to further update the system.

It has developed a power supply and cross contract system, thus providing electricity to more consumers with the same output as that in the past.

And it has developed a power-grid loss analysis system, making it possible to correctly measure the quantity of the lost power so as to decrease the loss of power in transmission and tap a lot of power reserves for raising the power factor of the electric power grids.

The power management research team of the institute has completed an integrated power management system of the Orangchon Power Station

Effort is made to improve operation of the national integrated electric power management system.



and is introducing such a system in hydropower stations across the country. The system was chosen as one of the top ten IT products in the national IT achievements exhibition.

And the control device research team of the institute is engrossed in the research to develop remote terminals and simultaneous hour meters which are important components of the national integrated power management system.

In keeping with the world trend of building intelligent electric power grids, the institute has developed a power supply and contract system for establishments and families, thus letting the power consumers measure their power consumption in real time via the state computer network and mobile communications network and use the energy rationally.

It is also promoting the development of a geographical information system for electricity production which will help survey the hydroelectric power generation resources that constitute the main link in the whole chain of national power production, and measure the volumes of water of reservoirs from season to season to put the power production on a scientific basis.

Kim Kyong Su, head of the institute, says, "As the level of the power management improves, the balance between production and consumption is under good control, and power is being supplied to the consumers on a stabler basis."

Ri Je Ryong



Secret of Increasing Production

THE WORKERS OF THE Sonchon Fishery Station in Sonchon County, North Phyongan Province refer to their manager, Kim Myong Gyu, as a determined character. This is because he has led them to increase seafood production considerably and expand the types of business.

Eighteen years ago, when Myong Gyu began to work as chief of the station, it had only a 54-ton fishing boat with a crew of several men.

While doing fishing with the single boat, he gradually increased the number of fishing boats. A few years later the station turned into the one with dozens of boats, including those of 50, 75 and 80 tons, followed by its remarkable increased production of seafood.

The station has a dry dock where they can repair ten boats at a time. The following is about how the facility came into being.

Ten years ago there arose the problem of repairing boats of the station.

Until then they had to take boats somewhere else to repair them. This cost a lot, and hindered the production of seafood in no small measure. The manager disliked it.

Soon afterwards, he proposed to install a dry dock by themselves. It was quite a task for the small station to make such a facility. A taciturn man, Kim did not say a lot to his workers

▶ over hundreds of thousands of insulators of more than 20 kinds a year.

Meanwhile, the material foundation of the factory has been consolidated. In recent

Kim Myong Gyu (centre).



but reminded them that what they had to rely on was their own strength. Then he himself went out to the seaside to break ground first. Well aware that he had been out on the sea striving to produce one more ton of seafood, rain or shine, the workers followed him without a complaint.

Then they brought hundreds of cubic metres of stones from a place over 4km away from the station and fixed them in the mud to lay the foundation, thus completing a base for repairing ten boats at a time.

In spring large and small boats repaired in the base go out to sea one after another.

The station also has a farm of nearly 200 hectares where there are growing varieties of shellfish including corbicula, short neck clam, trough shell and oyster. The farm was also created at the proposal of the manager.

The production results increased day after day, but Kim

years it has built a modern livestock house, a vegetable greenhouse and a mushroom cultivation ground. Last year it built a modern welfare service building Today a lot of people visit

was not content with it.

One day he had the idea that offshore culture might be profitable, and studied fish farming in close contact with relevant researchers. For nearly a year he accumulated experience in indoor shellfish farming, and pushed ahead with the creation of a farm at the same time.

And they put apple tree branches, stones from blasting and scores of tons of clam shells in the water of the farm, thus providing a favourable condition for the inhabitation of shellfish.

The result was optimistic. The following year the farm began to pay off profusely.

In 2017 the station increased production 1.3 times more than the previous year which had recorded the peak year level, and two times more than planned.

The State conferred the title of National Meritorious Person of Socialist Patriotism upon the manager.

Sim Chol Yong

the factory and ask the workers about the secret of the increased production. Then they say, "Where there is a will, there is a way."

Kim In Son



By Tapping Local Materials

THE SAYING "WHERE there is a will, there is a way" means that one can do anything when one is determined to do it. This can be proved by the reality of the Mundok Insulator Factory in Mundok County, South Phyongan Province.

A dozen years ago the factory had to bring raw materials necessary for the insulator production such as clay and white earth from Kyongsong County, North Hamgyong Province, over 250 miles away from it. This consumed a lot of manpower and fund. Then a man perceived the problem keenly. He was Kang Myong Nam, who was appointed as manager of the factory in Juche 92 (2003).

It is imperative to solve the problem first in order to reduce the expenses of the factory and consolidate the material foundation, the manager thought. So he set it as an essential task

to find out the raw and other materials in his locality, that is, Mundok County. However, not a few people thought that it was impossible. Until then it had been acknowledged that Kyongsong is a pottery-producing centre in the country, and that the quality of pottery and insulator could be ensured only when they were made of clay from the county.

Kang, however, was never dispirited. He organized survey teams and sent them to several places in their county. He himself explored some places there.

After a year of painstaking efforts they finally found out the relevant clay, the main raw material for insulator production. The result of its analysis showed that all indices of the clay could guarantee the quality of insulators. And the trial production followed. This served as a good opportunity for the fac-

tory's workers to get rid of their conservative and rigid way of thinking. Now the factory inspired its workers and technicians and thus five years later located in the county the sites of all other raw materials for the insulator production and then established the relevant production method.

Now all the workers, well aware that they can do anything when they are determined, made valuable inventions and put forward new ideas. They raised the yield of baking from 70% to 98%, increased the production capacity 1.76 times by raising the loading capacity of baking trolleys and their speed by 1.6 times respectively, and made it possible to use scrap pottery for production by 10%. Thus the factory, which had produced only two kinds of insulators until a dozen years ago, has developed into the one capable of producing

Ideals for New Victory

AT THE EIGHTH CONGRESS OF THE Workers' Party of Korea Kim Jong Un, general secretary of the Party, stressed the need for the entire Party to cherish the ideals of "The people are God," single-hearted unity and self-reliance deeply in mind once again and adhere more strictly to them.

"The people are God," single-hearted unity and self-reliance are the political ideals and principles of struggle whose validity and vitality have been proved through the practice of the Korean revolution.

The whole course of the pioneering and development of the Korean revolution consists in a history of regarding and respecting the people as God, a history of achieving the unity of the Party and the revolutionary ranks, and a glorious history of breaking through all difficulties in the way by dint of self-reliance.

President Kim Il Sung and Chairman Kim Jong Il turned the revolution itself into the cause of translating the affection for the people into reality, and successfully pushed ahead with socialist construction on the strength of single-hearted unity and self-reliance. Thus in the Democratic People's Republic of Korea there was established a people-centred socialist system and materialized the harmonious whole of the leader, the Party and the masses, and the country has turned into a dignified one developing and prospering by dint of self-reliance.

The idea of adhering more strictly to the three ideals of "The people are God," single-hearted unity and self-reliance reflects the WPK's revolutionary will to achieve new victory in all fields of socialist construction by remarkably increasing the country's own strength.

The WPK brought the world again to the realization of the ideals. This was an expression of its definite will and self-confidence in its capability to push ahead with socialist construction on schedule as the country planned, irrespective of favourable or unfavourable objective conditions.

The ideal of "The people are God" reflects the Party's permanent demand to hold fast to the revolutionary Party climate of regarding it as the starting point and absolute and immutable principle of the Party building and activity that the entire Party serves the people.

"Everything for the people and everything by relying on them!"—this is the core of leadership idea to which General Secretary Kim Jong Un holds fast.

The ideal of "The people are God" by which to regard the people as God and devote everything to them is a consistent political philosophy of the WPK. Kimilsungism-Kimjongilism, the guiding ideology of the Party, is, in essence, the people-first

doctrine, and it is the mode of existence of the Party and the overriding principle of its activities to make selfless, devoted efforts for the good of the people and ensure that the people are well off and have nothing to envy in the world.

For the past five years after its Seventh Congress the WPK ensured that the whole of its work was consistent with devoted efforts for the good of the people. The Party's politics based on the people-first principle resulted in lots of miracles and changes in all fields.

Last year there were held many meetings of the WPK including enlarged meetings of the Political Bureau of the Seventh WPK Central Committee, the 16th Meeting of the Political Bureau of the Seventh WPK Central Committee and the Sixth Enlarged Meeting of the Seventh Central Military Commission of the WPK. High on the agenda of the meetings were problems related to the well-being of the people.

For 76 years since inscribing the pattern of a hammer, a sickle and a writing brush on its red flag, the WPK has never separated itself from the people and has always advanced the revolution by relying on them. In the grave trials of history, the Party has trusted the people alone, and they have been its faithful supporters, advisers and assistants.

The cause of socialism in the country has advanced in unprecedentedly arduous and complicated circumstances. It is no fortuitous event that the Korean revolution has successfully pioneered the path of socialism. It is the fruit of the Korean people's united force and of their spirit of self-reliance and fortitude. Whenever the hostile forces' plots to isolate and stifle their country became wicked and severe difficulties cropped up, the Korean people were more firmly rallied around the Party in ideology, purpose and moral obligation and held up the banner of self-reliance higher. Thus they developed theirs into a powerful socialist country that is independent in politics, self-sufficient in the economy and self-reliant in national defence, and have invariably accelerated socialist construction despite harsh trials and ordeals.

In recent years they have made a great progress in making the national economy Juche-oriented, modern, scientific and IT-based, and miraculous events taken place one after another demonstrating the dignity and might of the country.

Last year, when the country suffered consecutive huge natural disasters, all the people turned out for the rehabilitation of the afflicted areas in response to the Party's appeal, thus turning the areas into socialist fairylands.

Through their own experiences the Korean people have been assured that single-hearted unity is really the great foundation of the Korean revolution

Guidance for the People's Well-being

Preferential Treatment to Miners

ONE JUNE DAY IN 1949 PREMIER Kim Il Sung convened in his office a conference of officials of industry, labour and finance ministries.

Mentioning that he wanted to discuss a matter of coal and ore mines, the Premier said that a lot of coal and ores should be mined in order to develop the economy of the country rapidly and that national efforts should be channelled into the undertaking. He went on to say it was necessary to develop new promising coal and ore mines actively while readjusting and reinforcing the existing ones and that preferential state treatment should be given to the workers and technicians of the mines.

An official said that as coal and ore mines were mostly located in remote mountain areas what mattered most was that they were backward in terms of cultural and welfare service facilities with insufficient supply of foodstuffs and daily necessities. After a while of deep thought the Premier said special attention should be paid to the life of the miners, who had become masters of the country, so that they would be able to dig lots of coal and ores while working as easily as possible. Nothing should be spared to give preferential state treatment to the miners, he said and took concrete measures to give special grants and extra allowances to them and solve the problem of food and clothing for them.

Soon afterwards there was adopted and promulgated a decision of the Cabinet on giving preferential treatment to workers of coal and ore mines.

Instead of Censure

One March day in 1975 Chairman Kim Jong Il, together with officials in the sector of the mining industry, went to the then Industrial and Agricultural Exhibition Hall.

He led the officials to a room with coal-mining machines on display. The room just looked like a coal pit where all jobs were done with machines. He came to a halt in front of a set of hydraulic supports standing along a long wall while propping the roof of the *coal pit*. There he asked if coal mines

in the Anju area were continuously using such supports. (At that time officials concerned were reluctant to use the mechanical supports complaining that coal production decreased when the supports were broken and put to repair.) Looking at the officials who were at a loss how to reply, Kim Jong Il said mechanical supports should be employed for effecting the overall mechanization of coal mining jobs as soon as possible and that bold efforts should be made to make coal mining equipment large and modern for that purpose.

Stressing repeatedly the urgent need to make such equipment large and modern, he suggested sending all the supports in the room to the coal mines in the Anju area.

Later the introduction of such supports that had been temporarily suspended started again.

Inspecting Power Station

One May day in 2019 the respected Comrade Kim Jong Un inspected Kumyagang Power Station No. 2.

After enjoying the sight of the magnificent dam for a while, he said with great satisfaction that the position of the dam was excellent and that he was quite pleased to see the reservoir of the power station filled with water even in the dry season.

After acquainting himself with the operation of the power station, he suggested climbing up the dam and headed for a metal ladder.

The ladder was the one workers of the power station used to patrol the dam and sluices and check the water level, and it was very steep and narrow.

Having mounted the dam by the ladder, Kim Jong Un said the reservoir had a considerable volume of water and that as it was always filled with water it would be possible to supply water for drinking and farming while generating electricity. Then he asked a senior official of the county Party committee if the county people were pleased with it. When the official answered yes, he, with a hearty laugh, said that they would be more pleased if more generators were installed in the power station and they had greater benefit from power supply.

Yom Song Hui

▶ and an unquenchable might of socialism and that self-reliance is the country's best mode of advance and development.

Confident that they will continue to enjoy a dignified life as long as they are led by the WPK, the

Korean people, with redoubled courage and full confidence, are advancing in the direction indicated by the Eighth Congress of the Party.

Ri Jong Nam

Education Highlighted in DPRK

AT THE FIFTH PLENARY Meeting of the Seventh Central Committee of the Workers' Party of Korea Kim Jong Un, general secretary of the WPK, specified the position and role of the education at present, saying that education can be called the mother of science. This statement epitomizes the principle that the basic way to radical development of science and technology lies in giving priority to education, and it reflects the Democratic People's Republic of Korea's strategy of building socialism.

In September 2012 an ordinance on enforcing the universal 12-year compulsory education was adopted at the Sixth Session of the 12th Supreme People's Assembly of the DPRK. The enforcement of the 12-year compulsory education was not merely a matter of increasing the period of schooling a year but a momentous change in the education sector aimed at perfecting the secondary education system and bringing about a fundamental improvement in educational contents, methods, conditions and environment. The new system was first introduced in 2014 and has been in full force since 2017.

Innovation is also taking place in the higher education sector. A great effort is channelled into the programme of combining education and scientific research closely, and upgrading colleges into those which are basically engaged in training the creative talents, developing theories on advanced science and creating latest technologies. As a result, new faculties, departments and institutes are established at colleges in order to improve and perfect their academic mechanism and set up a comprehensive academic structure.

Another expression of the na-

tion's attaching importance to education is a number of meetings and other events in recent years.

In August 2014 the respected Comrade Kim Jong Un made public the immortal classic work **"Let Us Bring about a Radical Turn in Education in the New Century to Turn Our Country into a Land of Learning, a Talent Power."** And in March 2019 he went to the polling station set up at Kim Chaek University of Technology and cast the ballot for the president of the university who was a candidate for a deputy to the Supreme People's Assembly. He also saw to it that excellent apartment houses were built for teachers, including the ones for teachers of Kim Il Sung University and those on Mirae Scientists Street. And he invited all those teachers who had been teaching at branch schools in remote islets and at schools in frontline areas and mountain villages, to Pyongyang to have a photo session with them in high appreciation of their patriotic deeds.

The Seventh Congress of the WPK in May 2016 had an important discussion on the matter of valuing talented personnel and making all the people well versed in science and technology, and for this purpose accelerating innovation in education. And the Third Plenary Meeting of the Seventh WPK Central Committee in April 2018 discussed the issue of bringing about a revolutionary turn in scientific research and education and set forth the slogan of **"Let us make a leap forward by dint of science and guarantee the future by dint of education!"**

Besides, the Eighth Congress of the WPK held in January last reiterated the general goal of making education the one which can be fully entrusted with the future of the country and the

goals and detailed tasks for the development of education. Consequently, the state budgetary expenditure on education this year has been increased by 3.5% compared to what it was last year. All these endeavours are producing due results in reality, and the speed of the country's sci-tech development is getting faster conspicuously. At the 28th World Memory Championships in 2019 some university students won the prize of the International Grandmaster of Memory while taking first place in the all-round national rankings. Last year students from Kim Il Sung University, Kim Chaek University of Technology and the University of Sciences proved successful several times in the Codechef programming contests, which were an international Internet competition.

Over 650 items of proposed main sci-tech achievements were presented to the 34th National Sci-tech Festival in 2019, which meant the increase of more than 20 items from that of the earlier festival. And the number of items put on display at the festival increased by 2 400-odd articles of over 210 kinds as compared to that of the earlier festival. Scores of key sci-tech projects of national importance had been completed during 80 days from October to December last year, and over 7 900 items of technical innovation had been worked out and introduced, thus opening a short cut for the sustained development and revitalization of the production at different units.

It is the invariable line of the WPK and the state to give priority to education to make all the people well-versed in science and technology, and rely on science and technology to pave an avenue for prosperity by dint of self-reliance.

Yun Song

Immortal Juche Idea (10)

Self-reliance in National Defence

NATIONAL DEFENCE IS an important matter decisive of the destiny of a country. From of old all countries that neglected military affairs fell victims of subordination.

How then should a country and nation settle the issue of national defence to protect themselves? The Juche idea illuminates the most correct way to build up the defence power capable of defending their country by their own efforts.

First of all, one must build self-reliant armed forces. Such armed forces must be organized with the sons and daughters of the people. Since the masters of the revolution and construction are the masses of the people, the masters of national defence are also the popular masses. An army made up of the sons and daughters of the people alone can guarantee unity between the army and the people, and between superiors and subordinates, and become a truly self-reliant people's army which safeguards national independence and revolutionary gains and serves the people.

Next, a defence system involving all the people and covering the whole country must be established. What is most important in this respect is to turn the entire army into a cadre army and modernize it.

Turning the whole army into a cadre army is to enable all the service personnel to acquire the ability to undertake duties of a higher rank in case of need; modernization of the whole army is to equip it with modern

arms, combat equipment, and the latest military science and technology.

In order to win a war an army must be qualitatively superior, and have a certain quantitative strength and be well armed.

Turning the whole army into a cadre army qualitatively strengthens it, and quickly multiplies it in case of need. Modernization of the whole army makes it invincible.

Arming all the people and fortifying the whole country is also important. Putting all the people under arms means making all the people ready to fight, arms in hand, in case war breaks out; fortification of the whole country means building up solid defences across the country and fortifying major points of military importance.

Modern warfare is three-dimensional. So no demarcation line can be drawn between the front and the rear. Hence, in order to repel aggressors all the people should be ready to fight with arms in hand, and the whole country be turned into a strong fortress.

In order to implement the principle of self-reliant defence, the nation must build its own defence industry. A national defence industry is a material guarantee for self-reliant armed forces.

At present the imperialists subjugate other countries by offering arms as bait, and plunder other peoples' resources and make huge profits through arms deal. Under these circumstances it is of tremendous significance

that a nation should build its own defence industry to defend itself. True, it would be difficult for small countries to produce all the arms they need. But it would be inadvisable to depend totally on others for the arms. They should build and develop their own defence industries so that they may produce whatever is within their power.

In order to implement the principle of self-reliant defence, it is essential to consolidate the home front.

The victory or defeat in modern war depends largely on whether or not manpower and material resources necessary for the war effort are ensured for a long period. This is because modern war invested with an enormous quantity of mass-destruction armaments requires an immense quantity of manpower and material resources unlike former wars. Therefore, a nation must build up strategic zones, store up necessary material resources, and make full preparations in peacetime so as to continue with production even in a contingency.

Today there still remains imperialism, the root cause of aggression and war, in the world. So it is imperative to build up a powerful self-reliant defence capability so as to maintain political independence, achieve economic self-sufficiency and build up an independent sovereign state.

Peace relies on a powerful national defence capability.

Kim Won Sik

Pride of Medical Scientist



EVERY WOMAN WANTS to be a mother. But there are quite a few women who cannot have a baby for different causes.

Dr. Hong Kyong Sun, head of the infertility treatment laboratory of the Pyongyang Maternity Hospital, is one of those medical workers who are working with all their wisdom and passion to bring such women the happiness due for them.

For her completion of a research on a technology of treating infertility, she was

Hong Kyong Sun (left).

► awarded the February 16 Sci-Tech Prize and selected as one of the national top scientists and technicians 2019.

It was a dozen years ago that she started the research project. It was a difficult task to establish a technology of in vitro fertilization-embryo transfer, which can be said to be a core technology in infertility treatment. At that time relevant research was being conducted, but with a lot of sci-tech problems to be solved. And Kyong Sun, head of the female health laboratory at the time, was unfamiliar to such research.

She recalls, "I regarded it as my duty to have all women getting treatment in the Pyongyang Maternity Hospital leave it with their babies. Though I was a stranger to the field, I was reluctant to give up."

She continued the research day and night while studying and analysing the previous treatment experience and the data on advanced medical science and technology. On the basis of basic data she established each of the processes and worked out the most rational method. At last she and her team succeeded in making each process of in vitro fertilization scientific and putting it on an advanced level. Besides, she invented the effective reagents and culture solutions the kind of which had been imported previously, thus making it possible to continue the treatment uninterrupted in any conditions.

She made public a thesis on the clinical study of infertility treatment by in vitro fertilization-embryo transfer, which brought her the doctorate.

The technology she invented makes it possible to raise the obstinate infertility treatment effectiveness. Now it has been widely introduced in clinical practice, proving its great merits.

Han Sun Yong, a woman living in Ryongbuk-dong, Taesong District, Pyongyang, says, "I could not have a baby for a decade after marriage. But last year I got treatment at the Pyongyang Maternity Hospital free of charge and had a child. I am really happy, indeed. All my family and I are quite obliged to the doctors who made us happy."

Hong is still engrossed in research, finding the pride of her life in seeing women leave the hospital with the joy of having become a mother.

Kim Myong Sim

Authority on Burns Treatment

WHEN I MET RI KYONG Ae, associate professor of the general surgery department of Pyongyang University of Medical Sciences, she showed me a photo album, asking me, "Have you ever seen such cases?"

Usually, people want to put only beautiful images in photos. However, pictures of the album were beyond imagination. "Oh! My God!" I screamed, turning my eyes away from them. They were pictures of damaged bodies and faces. Then the doctor said, "These are traces of my life, and they are valuable technical data I have accumulated during my career."

In an instant I could imagine her career related to patients with burns and scalpels. "How could you become a surgeon? That is a difficult career even for men, isn't it?" I asked. Then the doctor told me the following story.

Her mother Han Jong Ok was one of the first-batch graduates from Pyongyang University of Medical Sciences, and a competent military surgeon. During the fierce Fatherland Liberation War in the 1950s she worked on the frontline treating soldiers on the verge of death. After the war she was engrossed in the treatment of the war wounded. Her daughter, Kyong Ae, spent her childhood, smelling the odour of disinfectant from her mother. Seeing her mother dedicating herself to the treatment of patients regardless of time she made up her mind to become a surgeon who would be able to take responsibility for people's lives.

After graduating from college Kyong Ae became a surgeon at the Hamhung Orthopaedic Hospital. She always stayed at the hospital. The midnight and the early morning when eminent male surgeons were too exhaust-

ed to perform operations were the golden time for her to do operations to her heart's content. In those days her surgical technique improved gradually. Indeed, she had the makings of a surgeon with strong creative power, clear judgment, seasoned dexterity and bravery. "She performs operations boldly"—this was the comment on the girl surgeon.

There was an anecdote that she put on her wedding dress in haste in the afternoon of her wedding day only after conducting an operation in the morning in order to have a scientific understanding of plastic operation and relevant clinical experience.

She started research on plastic surgical operation for burn, aftereffects of burn and other obstinate diseases common in the surgical realm. She also completed a paper based on her clinical experience in employing plastic surgical operations

► for grafting skin onto the burns of certain regions that might be affected by deformation and dysfunction. And she wrote several textbooks and reference books including *Paediatric Orthopaedics* and *General Surgery*.

There is the following record on her treatment diary which she has kept for scores of years.

One December day three years ago three persons, on stretchers, were rushed to the hospital at 23:30. They were in a critical condition—their faces and arms were burnt black, and over 35% of their bodies got a third-degree burn with the respiratory burn as well.

While treating them, Kyong Ae discovered not a few unusual symptoms she had never seen before. Once she could hardly make a decision on blood transfusion for removing poisoning as the number of platelets jumped up to 700 000-800 000 instead of being reduced. Moreover, grafts fell repeatedly and soft tissues kept corroding inwardly. Now the surgeon made painstaking efforts to sort out scientific

solutions to contradictory points never to be explained with the preconceived ideas and her experience. She did skin grafting nine times, instead of three times recognized as enough in the past. The day the patients recovered she hugged them, shedding tears of joy.

If the letters she received from the people who had recovered after getting treatment from her are piled up, the pile will be as high as a desk. She said the sight of the letters encourages her whenever she finds herself exhausted owing to uninterrupted operations.

In the album I also saw the photos of her cases taken after their recovery. Then the doctor said, "Knife is used to cut or

Ri Kyong Ae (right).



break something. However, the scalpel in our hand is the one for grafting skin and saving people from death. In this sense, I'd like to say that superb medical proficiency is sincere dedication to patients."

What I heard from her filled my notebook, and it was regretful that I could not put down all of it on the article.

The doctor's album is getting thicker and thicker.

Yom Song Hui



Parental care is given to a child.

With Sincerity and Devotion

TODAY RAPID PROGRESS is being made in medical science with the development of science and technology and introduction of advanced machines and equipment.

Still, doctors and nurses of the neurosurgery department of the Okryu Children's Hospital have a motto of their own. It is "Medicine is a benevolent art."

The department was organized with the establishment of the hospital in Juche 102 (2013). At that time, Kim Jin Myong, head of the department, said, "We should become the true kith and kin of all patients." His words were not so long, but they were deeply imprinted in the mind of his doctors and nurses. From then on they took devoted care of little patients.

One day an ambulance rushed to the hospital a girl in a state of shock. She was diagnosed as with Arnold-Chiari

malformations. At that time her illness was terminal, tetraplegia coupled with a respiratory disorder. Immediately, she was moved to the aforesaid department to get intensive treatment.

The treatment to save her life continued day and night; relevant consultations were held several times a day, and tonics and nutrients were continuously administered.

The doctors often burned the midnight oil trying to bring her back to health, and the nurses strove to help her recover from her illness. At last she left the hospital after completely recovering from the disease in 40 days.

Last year a boy, who was diagnosed as with cervical intramedullary spinal cord tumour, was sent to the department. The tumour penetrated into the junction between the

brain and spinal cord of the boy, and the knotty problem was that the tumour was huge. It was about seven centimetres long, reaching the fifth cervical vertebra. Recalling those days Kim Yong Ok, chief nurse, says, "The operation took eight hours. However, there was a very slim

▶ chance that he would recover. If we had not treated him like our own child, we could not have saved him."

After the operation the doctors and nurses of the department took care of him with great sincerity, and his motor nerves, which had been completely paralysed, began to recover one after another. Soon afterwards, he left the hospital on his own feet.

▶ The affectionate care of the

In a recuperation room.



Medical workers congratulate a boy on his birthday in the hospital.



doctors and nurses gave birth to a lot of laudable episodes. For example, they took parental care of children from an orphanage and a baby home, and prepared a birthday table for a patient.

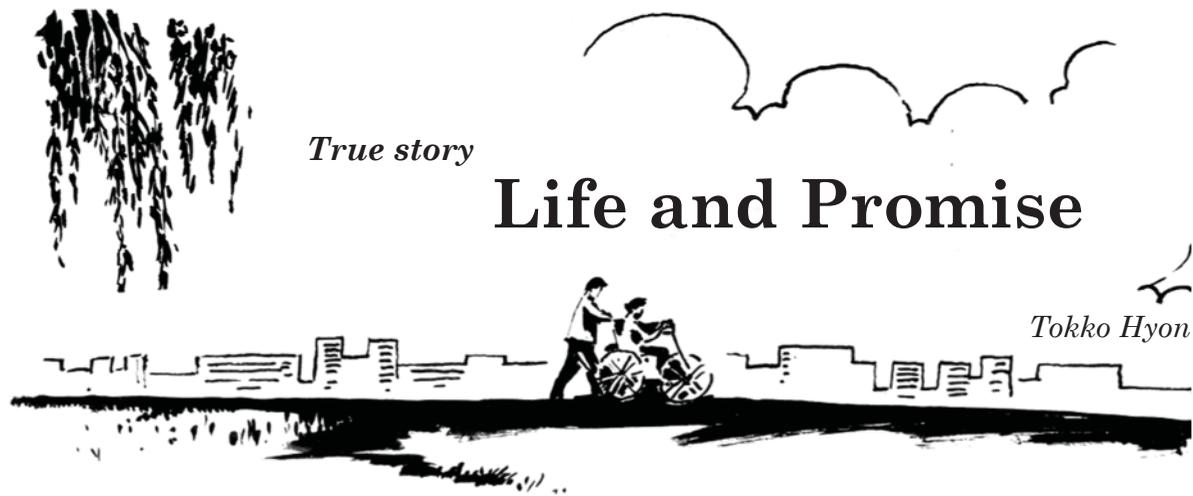
With such humanity, they developed and employed new operation methods including those of operating for different brain tumours such as fossa posterior tumour and the third ventricular tumour.

The selective dorsal rhi-

zotomy they developed and employed for cerebral palsy and pial-synangiosis were rated excellent by experienced home and foreign doctors and medical societies at a medical science seminar held in Pyongyang.

Now the doctors and nurses of the department are redoubling their curative efforts with such humanity.

*Article by Kim Son Myong
Photos by Hwang Ryo Jong*



True story

Life and Promise

Tokko Hyon

(Continued from the last issue)

NOW I BECAME UTTERLY helpless. Not only my family and relatives but also Kil Sun and her parents disagreed with me. Subsequently I found myself worrying I might be trying alone to do what was really impossible. But I further stiffened my resolution deliberately, calming myself. *Even if I am rejected by my relatives, it'll be all right*, I concluded. *It's out of my civic conscience to marry Kil Sun.*

One day I hurried to Kil Sun's house bringing my citizen's certificate with me thinking that I had to do marriage registration first.

I got there, when Kil Sun's mother, coming out of the house, noticed me. Pleased to see me, she put her finger to her lips, whispering, "Here's your father in the house."

Her words frightened me. As a matter of fact, I exchanged few words with him for something like two months from the day he rejected my intention.

Is he here? I thought feeling bitter against him. *Does he mean he will bring the matter to an end today?*

Dumbfounded I barely managed to calm myself down, opened the door and stepped into the house, when I heard my

father saying pleasantly.

"Well, Kil Sun, you're as good as a member of my family from now. I know you've kept your mental sufferings to yourself. Ki Chon, too, must have suffered, too. It's a matter of course for him to take such a trouble to marry a good girl like you. I believe in my son. Still, I tried to test once again if his resolution was really firm," he explained.

Holding Kil Sun and me by the wrist, he said, "In the future you might have more hard times than happy and good times. Sometimes, after serious misunderstandings, you might abruptly have regrets about your marriage. But you should control yourselves and be invariable. If you fail to keep a solemn promise to the end, how could you say you are an honorable citizen? I want you to keep it in mind and make a long journey of life with one mind."

Kwang Ho, this is how I married Kil Sun.

Now I'm quite happy with a new life. I want you to wish me good luck even if you are far away. When you come to see me again, please bring me a larger bouquet with you to make up for what you've failed to bring this time.

Yours sincerely, Pak Ki Chon

* * *

Ho Kwang Ho's story ended there. I wanted him to continue the story. But it was impossible in view of the objective condition: The train arrived at Chongjin Station, our destination.

The material supplier helped Ho with his luggage, thanking him for his good story. But the young man, Won Ho, said nothing, absorbed in thinking.

I decided inwardly to go and see the manager Pak Ki Chon without fail during my journey for news coverage that time.

Part 2 Hill of Life

1

After finishing the coverage of young workers of the Kim Chaek Iron and Steel Complex and the writing of the relevant article in four days, I, availing myself of the opportunity of transmitting the article to my home office, informed them of my plan for coverage of the couple of Pak Ki Chon and Pak Kil Sun. They readily consented to my plan.

When I was going downstairs in my hotel, a young man, who was coming upstairs, called me gladly.

Unexpectedly, it was the young man, Won Ho, whom I

met on the train.

With an awkward smile, Won Ho timidly asked, "Mr Journalist, did you visit the couple of lovebirds we heard about on the train?"

"Not yet. I'm just going to see them now," I said.

Glad to hear me, he asked again, "Well, could I accompany you there?"

For a moment I hesitated. I had done lots of news coverage, but I had never had an accompaniment of a person other than a journalist.

I, however, needed no more explanation because I could fully understand his feelings: He perhaps wanted to know about the post-marriage life of the manager Pak Ki Chon. And he was now worried about his own family affair.

I decided to bring him with me.

Pak Ki Chon's house was at the entrance to a village of single-storey houses that started some distance up the narrow road in front of the Phohang District People's Committee.

Told why we were there, Pak Kil Sun welcomed us, saying, "I was unfortunately paraplegic in my youth, the period called prime of life. But I've lived without thinking I'm miserable at all. Actually I have been happy. It is not too much to say that such misfortune rather made me unusually happy. I read in a book that a woman's genuine life starts with marriage.

"I had made up my mind to stay single all my life. Then, starting a new life despite myself, I could not help but feel at a loss with the new environment and conditions."

Kil Sun's story started like this.

2

The first morning in her husband's home, the bride should prepare breakfast for the family. Pak Kil Sun, however, found it

quite baffling.

Then Ki Chon smiled affably, saying, "Don't worry. I'll do it. I'm admirably excellent at cooking. I can make rice cake, pancake, dumplings, sausages and so on. From now on my strong legs, shoulders and skill of cooking are also yours."

"But how can I let you do it from the first morning?" Kil Sun worried.

"I'll do it secretly, and you'll say you have done it. So never worry about it," Ki Chon assured her.

Ki Chon was really exact. Just at 5 a.m. he got up and went in and out of the kitchen only a few times. He, however, prepared many kinds of dishes to Kil Sun's surprise.

After setting an abundant table, Ki Chon called his parents and brothers.

It seemed that he had made a certain promise with his parents, for his father Pak Pyong Gol looked satisfied without any sign of dissatisfaction on his face.

On Sunday several days later there were football matches between workshops of Ki Chon's enterprise. He took Kil Sun on her wheelchair to the enterprise so that she could see the match he played himself. For lunch he, together with his colleagues, cooked fish porridge for her on the spur of a hill in the sand beach.

Kil Sun's life was newly enlivened. She boldly set goals she had never thought of before. She decided to not only cook rice but also make kimchi by herself in the coming kimchi-making season.

And with winter just ahead she had to knit gloves and sweaters for her husband and his parents as soon as possible.

After hearing about her plan, Ki Chon said, "Good, I agree with you. It is certain that you cannot sit idle in the room. But

you've forgotten something important."

"What do you mean?" asked Kil Sun.

"Do you know how many people work for you and me? Above all, we can each have three meals a day because farm workers take the trouble to do farming all the year round. And we can wear clothes because weavers make cloth, and tailors make the clothes. Builders build houses, and you see the bed of ours could be obtained because lumberjacks cut wood and carpenters make such furniture with the wood. Anyway hundreds of people work for the sake of a person. So you and I, as members of the society, should do something for the sake of society."

Now Kil Sun understood what her husband intended to say. And she felt sorry that she had not done anything for nearly seven years since she was back home discharged from military service.

Reading her mind Ki Chon smiled, saying, "But I don't mean you should start to work just now. You had better apply for a job with something like the district housewives workteam. Next, you should pay attention to your treatment."

"My treatment?" Kil Sun asked without confidence. She could not believe that her disease could be cured as she had visited a lot of hospitals for the treatment but in vain.

Ki Chon, however, was quite optimistic.

"Don't be disheartened. I'm sure it can be cured. Within two or three years, nay, maybe earlier than that," said the husband.

The unreserved talk between the man and wife seemed to have enlivened the woman.

Right. I should work. With this thought Kil Sun wanted to do something just now. And she felt quite grateful to her husband for his encouraging words.

(To be continued)

Vinalon Inventor and His Descendants



Ri Sung Gi.

THERE GOES A SAYING “LIKE FATHER like son.” Does it simply denote genetic importance?

Inventor of Fabric from Stone

It was still a fantasy in the 19th century to make fabric from stone. It, however, became a reality in the 20th century. The inventor of the relevant technology was Ri Sung Gi (October 1, 1905–February 8, 1996) of the Democratic People’s Republic of Korea.

For all his life Ri could not forget his mother’s hands that were chapped weaving fabric on a loom, and his sisters who had each only one suit of clothes to wear when they went out. Ri’s lifelong desire was to make cheap yet soft fabric for his home villagers. So he spent his life striving to translate the desire into reality.

In 1939 he succeeded in making vinalon, a kind of synthetic fibre, from polyvinyl alcohol for the first time in the world. The invention of vinalon provided global chemistry with the springboard for a leap forward, and led to a dramatic change in the textile industry.

Ri strove to establish an industrial basis for production of vinalon in Japan and south Korea, but his endeavour was not permitted there.

During the Fatherland Liberation War (June 25, 1950–July 27, 1953) he was taken into the embrace of the Democratic People’s Republic of Korea. Only then could he resume the research for the industrial production of vinalon over ten years after his invention of the fibre.

He was provided with a laboratory arranged in a tunnel in a mountain to be free from damage by aerial bombing, along with experimental apparatuses and equipment. And three trucks brought over 100 000 books on science and technology, running over 250 miles 40 times. The library of the Hamhung Branch of the State Academy of Sciences still keeps the magazines and books that had been holed by the enemy strafing at that time. Besides, a measure was taken to recall scientists who were fighting at the front to join his research group.

After the war the State set the industrial production of vinalon as an important research task.

All the vinalon production processes were newly developed to suit the actual conditions of the country, from feeding of limestone and anthra-

cite, the raw materials for vinalon, to the process of making polyvinyl-alcohol spinning solution.

The following is about how the fibre got the name *vinalon*.

The new fibre had been called Synthesis No. 1 for 20 years since its invention. In February 1957 President Kim Il Sung, talking to Ri, asked if the fibre had a Korean name. Then the scientist suggested naming it vialon after the initials *vi* and *al* of vinyl and alcohol and the Korean character *lon* meaning fibre. The President, however, proposed to name it vinalon after the Korean word *nalsil* (the warp) the Korean ancestors had used in spinning threads.

In May 1961, when the first vinalon factory was inaugurated in Hamhung, the President congratulated the scientist, saying: Today your desire has come true.

And the scientist was glorified with the titles of Kim Il Sung Prize winner, Labour Hero, People’s Scientist, academician, professor and doctor, which no one else could get with ease.

Ri said, “A scientist’s destiny is defined not by his or her qualifications or efforts, that is, subjective factors, but by the character of the system in which they live.”

There Is No End to Science

The chemical industry of the DPRK was developing rapidly in the 1960s. This required that the problem of catalysts playing an important role in chemical reaction be solved before anything else.

It was at that time that Ri Sung Gi advised his son, Ri Jong Gwa, to switch to the domain of catalysts. At the time Jong Gwa was specializing in a different domain of chemistry. And the research project to which he had devoted his all with a dream of becoming an inventor like his father was near to completion. Now he found himself in agony over the choice of whether to continue the research for invention or follow his father’s advice. After all he decided he had to regard his father’s advice not merely as a parental one. He saw it as a senior-generation scientist’s request to a junior-generation one for the future of the country’s science.

Thus Jong Gwa began to strive to pioneer the domain of catalysts anew.

Later a State measure was taken to transfer the scientist, who was teaching at the Ham-

hung University of Chemical Industry, to the Faculty of Chemistry, Kim Il Sung University, the highest educational institution in the country, with superior educational conditions and environment and advanced research conditions.

Now Jong Gwa, with new insight, further developed the theory and technology of catalysts. He established new subjects such as *Reaction Engineering* and *Methodology of Catalytic Research*, wrote over 20 kinds of textbooks and reference books including *Catalytic Chemistry*, *Catalytic Nanotechnology* and *Handbook of Catalysts* and made public more than 100 papers.

Eight of his students developed into doctors under his guidance.

Meanwhile, Jong Gwa noticed that using a different catalyst makes a different thing from the same materials, and conducted relevant researches, thus developing lots of catalysts needed in different sectors of the national economy.

For his achievements he was given the titles of People’s Scientist, candidate academician, professor and doctor.

In December last year he celebrated his 80th birthday. But he is still engrossed in research. Perhaps he has the same attachment to and sincerity toward science as his father who was always anxious to do what he had to do, regardless of what he had done.

There is no end to science. His children, too, are engaged in scientific research with the belief that the frontiers of science are never far away at all if they approach science with sincerity for the sake of the people.

Rim Ok

Ri’s descendants pay a visit to his grave at the Patriotic Martyrs Cemetery in October 2018.





Director Pak Hyok.



E-commerce Gets Expansive

THE DEMAND FOR e-commerce is growing day after day. As the practical efficiency of commercial service based on computer and mobile communications networks is being proved clearly, the sphere of e-commerce is widening around the world.

E-commerce in the Democratic People's Republic of Korea was started by the Yonphung Business Information Technology Centre. In 2015 the centre launched its e-commerce website *Manmulsang*. It set a goal of developing the website to make an active contribution to the development of the national economy and improvement of the people's living standards, and to befit a window for many-sided economic exchange.

For the past six years officials of the centre have made painstaking efforts to attain the goal. This made the centre emerge as a leading e-commerce institution of the country. A lot of businesses in the country have opened their

online shops in the centre's website *Manmulsang*. Its real-time updating of commodities, database of commodities and profitable economic information service fully satisfy the requirements of different businesses. Now the centre is continuously widening the sphere of promotion such as introduction of specialities and that of technical products.

It also built a "bridge" linking the DPRK with other countries, and started to introduce commodities through the web-

site in January last.

Meanwhile, the centre is blazing the trail in the field of e-payment, one of the essential components of e-commerce.

The technical force of the centre is making a constant effort to develop many-sided exchange, cooperation and collaboration in e-commerce, trade and service work. The expectation for the centre headed by Pak Hyok in his thirties is very high at home and abroad.

Yom Song Hui

The range of commercial introduction increases through the e-commerce website *Manmulsang*.



Efforts for Correct and Prompt Weather Forecast

Song Chol Man.



NOT LONG AGO A *KOREA TODAY* reporter had an interview with Song Chol Man, vice director of the State Hydro-Meteorological Administration of the Democratic People's Republic of Korea.

At present the world is suffering heavy damage from the abnormal weather caused by global warming.

You're right. As you know El Nino and La Nina have brought about sultry weather, drought and heavy rain and snowfall, spreading all sorts of contagious diseases that have threatened the lives of the people. Last year the ever-aggravating abnormal weather led to natural disasters that caused many countries tremendous damage, badly affecting their economic development and the life of their peoples.

The abnormal weather is worsening, and I think weather observation and forecast is important in protecting the lives and property of people and preventing natural damage in time.

Certainly. In order to protect the lives and property of people and develop the economy, weather observation and forecast should be put on a modern and scientific footing. My administration is putting in effort to put weather observation and forecast on a modern and scientific basis. Especially, we are making wide use of the latest scientific and technical means including the satellite communications network to help prevent natural calamities such as forest fire, flood and high temperature and develop

the economy.

Last year we forecast in real time the weather data on typhoons Nos. 8, 9 and 10 and so on, thus making it possible to minimize the natural disasters. We have established a very-short-term forecast system for more rapid weather forecast than before, thus making preparations in advance to cope quickly with the ever-changing weather conditions. We have also developed and employed a method of mathematical forecast of heavy rain and hail and that of typhoon warning, and established a meteorological disaster warning system.

Now we are actively pushing ahead with the work of monitoring regularly the water volume of reservoirs affected by drought, and the states of sluice gates and seas, and informing the relevant data quickly.

Our country joined the World Meteorological Organization at its seventh session held in Geneva on May 7, 1975, and set up a hydro-meteorological monitoring system suited to its actual conditions. We are modernizing it steadily. Together with this, we are striving to provide correct and prompt forecasts of weather conditions that may affect the life of the people and the national economy while intensifying the relevant international cooperation.

We will keep making efforts to further improve weather observation and forecast to make a contribution to the development of mankind and their safety. □

How Mun Has Overcome Disability



Mun Kwang Il.

MUN KWANG IL, A researcher at the Vocational Training School for Persons with Disabilities, is a man with physical disabilities.

When he was two, he became unable to speak and walk properly owing to cerebral palsy.

With the passage of time he determined to fight against the fate of having to depend on the help from other people all his life.

While getting Koryo medicine-based treatment and acupuncture from doctors of the Koryo Medicine General Hospital, he made persistent efforts to translate his determination into reality.

He spent several years doing difficult physical exercise for the purpose of getting rid of his motor neuropathy, thus becoming able to walk by himself. And he recovered the speaking faculty as well.

Later some people advised him to get vocational training for hairdressing, beauty treat-

ment or other easy job. He, however, entered a middle school like normal children.

His teachers and classmates sincerely helped him with his study and life. Thus he graduated from the school with good marks and was enrolled at Phyongsong College of Medical Sciences. At first, he had wished to become an engineer. But just before graduating from the middle school he made up his mind to specialize in medical science hoping to help physically handicapped people like his teachers and classmates had done him.

While majoring in Koryo medicine at college, he witnessed some people fall ill without any certain diseases. Then he found out the reason: Their immunity weakened, and thus their resistance to pathogenic radiation also dropped.

With the belief that the problem could be solved by raising the immunity of the human body, he started the relevant

research. He pushed ahead with the project while having two or three hours of sleep a day. His mother, a Merited Scientist and doctor of the foodstuff engineering, gave him a lot of assistance.

Through his studies he knew that royal jelly is capable of raising the immunity of the human body and effectively preventing damage by pathogenic radiation, radioactive rays, in particular, as it is highly nutritive.

A dozen years of research brought him the success in developing eight kinds of royal jelly products. Among them are the royal jelly-based peach tree stem granules and the royal jelly-based hirudin capsules which won a gold medal and a bronze medal respectively at the 16th national inventions exhibition.

His inventions are favourably commented upon in the neighbouring countries as well as at home.

He is engaged in education of persons with disabilities. He prepared a new teaching program to suit the psychology and physical conditions of students with disabilities. It is now applied to a lot of students.

Mun says, "In my country persons with disabilities are given preferential treatment and social protection. But I don't think it's good they always expect help. The real trouble lies in mentality. Just stay out of the mental trouble, and you will be able to shake off your physical trouble."

Mun is enthusiastically engrossed in research and education.

Ri Je Ryong

Liquefied Rare Earth Draws Attention

RARE EARTH ELEMENTS ARE REGARDED as basic materials indispensable to modern industry as they have greater activity, especially higher binding capacity, than other elements. Today they are called "strategic resources in the 21st century."

In the Democratic People's Republic of Korea the research to separate rare earth elements and make them highly pure started dozens of years ago. In the course of this, a rare earth element separation technology and a relevant combination technology have been established, and progress has been made in the research to liquefy rare earth.

The scientists and technicians of the Moksong Rare Earth Bioproduct Manufactory have developed a highly effective rare earth bioactive injection (for animal husbandry) from liquefied rare earth.

The head of the manufactory says, "Now powder of rare earth elements is in worldwide use in the stockbreeding sector. We, however, separated and dissolved rare earth elements into high-purity liquid, and developed an injection which can be used as an animal feed additive and a veterinary medicine."

The use of the injection at stockbreeding farms and individual families for dozens of years proved its efficacy and vitality. Kim Hyon Ae, a worker of the Namdong Cooperative Farm, Phyongwon

Public interest in rare earth bioactive injection is growing.



County, South Phyongan Province, says, "In the past I used various additives for raising domestic animals, but they were inferior to this injection. Since I used the injection, I could raise the growth rate of animals 1.5 times while reducing their feed consumption to one third."

Users of the injection unanimously comment that it is obviously effective in disease prevention, and is capable of removing various pathogenic parasites completely and ensuring a clean environment for animal husbandry.

It is drawing great attention of stockbreeders who aspire to ideal disease prevention and meat production.

The injection of great significance in the development of animal husbandry was registered as a state sci-tech achievement in June 2020.

The scientists and technicians of the manufactory are striving to use resources richly available in the country to develop and introduce things conducive to the economic construction and the improvement of the people's living standards.

Pak Wi Hyang

Small Institute in Woods

SOME TIME AGO I VISITED THE FOREST Engineering institute, the Academy of Forestry, in Taesong-dong, Taesong District, Pyongyang.

The building of the institute was decorated with tiles of different colours to go well with the surrounding thick woods. The institute has a plastic panel greenhouse with an area of over 900m², an outdoor adaptation ground of over 300m² in area, and so on.

When I admired the institute for its neatness, Ri Yong Hwan, head of the institute, said with a smile, "Though small, my institute has got considerable research findings."

I looked round the plastic panel greenhouse first. In the greenhouse there were some people looking after saplings of *Taxus media*. I was looking carefully at green saplings on standard seedbeds when Ri Sun Chol, head of the plant acclimatization laboratory, explained as follows:

As a natural composite of the yew and the European yew, *Taxus media* is rich in taxol, an anticancer substance. It usually contains 0.03 to 0.06 percent of taxol, eight or ten times more than that of an ordinary yew tree.

Taxus media is characterized by its very high air-purifying capacity: It absorbs carbon dioxide and emits oxygen for twenty-four hours. Now the tree is called living fossil and golden plant in the world as it is a rare plant of high medical and economic values.

It was in Juche 96 (2007) that researchers of the institute began to pay attention to *Taxus media*. It is important and necessary to spread to various parts of the country the tree quite good for the promotion of the people's health in particular. This was what the researchers concluded and decided to do at that time.

Through repeated experiments and failures, they managed to establish an industrial method of producing saplings of the variety and a technique of

cultivating them.

In 2016 the Median yew tree acclimatized to the mountain climate of the country was formally registered as a national tree species.

Now they produce and spread thousands of yew saplings across the country every year. This is a considerable achievement as 1kg of taxol is enough to make anticancer medicines for 500 people.

Guided by the head of the institute, I looked round the open-air adaptation ground as well. The ground was thick with various good species of trees including beeches and tara vines. Conspicuous was the highbush blueberry. Originally Paektusan blueberry, a specialty of Korea, was cultivated in Ryanggang Province alone, the northern alpine region of the country. But the new variety of highbush blueberry acclimatized by the researchers can be cultivated anywhere in the central region of the country.

Mentioning that now they have laid an industrial foundation for producing more than 100 000 saplings of the blueberry a year through over ten years of research, the head of the institute said, "It is not long before you can see the blueberry trees anywhere in the central region of the country as well as its northern alpine region. The tree is not tall—1 to 1.2m high. But it enables us to picture the future of the country with more abundant resources."

His words also reflected the unanimous feelings of the researchers.

In recent years alone they have established a technique of producing and cultivating by dint of tissue culture saplings of scores of species of trees of high economic effectiveness including pagoda tree, arborvitae, black chokeberry and *Cornus florida*.

The institute in the forest was small, but the researchers were burning with great patriotism.

Kim Yong Hui

Researchers observe the state of tissue culture of the blueberry.



People Who Strive to Increase Forest Land

JUNGSAN COUNTY, SOUTH Phyonan Province, is located in the west coast of the Democratic People's Republic of Korea. It has a lot of hills 100-150 metres above sea level, and the forest land is not so large at the moment. In this situation the workers of the Jungsan County Forest Management Station are making steady efforts to increase the forest area in the locality.

A few years ago they built a new parent tree nursery to meet the demand for saplings in the county.

What comes into sight at first in the nursery are the saplings of poplar and other kinds of trees which grow fast regardless of soil fertility. In particular, it is said that trees planted along the rivers in the county which has many streams and rivers flowing into the West Sea of Korea help to protect embankments and create windbreak, thus bringing about considerable benefit to farming.

In the course of studying different species of trees the sta-

tion chose to grow the Sangwon poplar (*Populus sieboldii*) which grows fast. It supplied popular saplings produced in the nursery to the afforestation subworkteams of each farm in the county to plant them at the foot of hills and along the bank of rivers. Besides, it gave farms lessons about how to grow saplings so that they are now producing young trees by themselves.

The parent tree nursery also turns out a lot of saplings of pine, nut pine, larch, chestnut, hawthorn, oil-bearing tree, wild grape vine, tara vine and so on. It has a saplings greenhouse, a tall tree saplings cultivation area, a sci-tech learning space, and bases for producing biochemicals and *Trichogrammatidae*. The saplings greenhouse, which can produce saplings more than twice a year regardless of seasonal conditions, is run by a general control system. The system automatically controls the intensity of light, humidity, irrigation and venti-

lation, and watering is all done by unmanned devices.

In 2019 the workers of the station produced three times more saplings of good species for forest restoration than they had done the previous year, and finished the tree planting on 2 500 hectares until last year. And they are masters in cultivating saplings, and it is attributable to the practical operation of the sci-tech learning space. Through the sci-tech learning they developed and introduced the method of using *Trichogrammatidae* for the extermination of harmful insects, thus getting much profit from it. They also developed methods of producing saplings regardless of seasonal change by means of cutting sprouting and fresh branches in the tissue culture laboratory.

From early this year the workers are endeavouring to grow a large number of saplings of nut pine, *Pinus strobes*, red pine, black pine and metasequoia.

Sim Hyon Jin

Songchon County Changes

SONGCHON COUNTY OF South Phyongan Province is well known for its production of famous Songchon tobacco and Songchon chestnut. Now all mountains and rivers in the county have turned into treasure, adding to the pride of the county.

The mountains, which account for over 68% of the county's area, are now covered with forests of economic value and timber forests, and the rivers have been well improved with their water used to generate electricity. Thus the county seat, which used to suffer flood disasters, has turned as nice as a park; a lot of modern houses have appeared in every ri and standardized fields yield bumper crops year after year.

In the past the Piryu River in the county often overflowed annually, which was a root cause of

severe damage to its residents. The volume of water of the river is considerably large as many streams in the wide region of Pukchang and Sinyang counties flow into it. According to the local inhabitants, when there is heavy rain up the Piryu River, the effect reaches the county in about eight hours, and the water once rose four to six metres high. In the county even small rainfall severed roads, turning villages into "islets."

The flood washed away much soil including cropland, causing the loss of grain cultivated with effort.

It was a dozen years ago that the county buckled down to afforestation and water conservation in earnest. Everyone in the county turned out to plant trees in mountains and dredged and cleaned rivers and streams. Ri Yong Il, manager of

the County Forest Management Station, says, "When we began the nature-remaking project, some people wondered if we could carry it out by ourselves. We, however, planted forests and improved the rivers and streams by relying on our own strength."

The county modernized its parent tree nursery and saw to it that each ri laid its own tree nursery. It also set up the system of putting a certain area of planted trees under a certain person's care, thus raising the rooting rate. In the past five years over 37.778 million saplings were produced, and thus more than 9 000 hectares of forests have come into being.

The county has also pushed ahead with the river improvement as the masses' own effort at the same time. According to Ri Chol Hak, an official of the



At a newly-built house.



► county administration, they have improved 411.5 kilometres of minor streams, which account for 90% of the total length of the streams in the county, constructed over 250 miles of embankments, newly acquired or recovered farmland of 200-odd hectares, and reclaimed cold waterlogged land of over 1 150 hectares.

Cha Hyon Ryong, manager of the Songchon County Minor Power Stations Management Company, says, "It was really not an easy job to harness the

water of the Piryu River. But we did it. We built a power station on the river with our own strength. We're now benefiting much from it."

Last year, when it down-poured across the country and typhoons swept it several times, the precipitation in the county was 1 125mm for 50-odd days. But not a single house or a patch of land was destroyed or lost. Won Jong Ho, a resident in the county, says, "Whenever I see the mountains, rivers, streets and villages which have remark-

ably changed in a dozen years, I feel great pride. It is all the more valuable as we have brought about such changes with our own strength."

Now more and more people visit the county to learn from its experience. The local people are wont to say to the visitors that mountains and rivers bring happiness to those who tend them sincerely, but misfortunes to those who neglect them.

*Article by Pak Yong Il
Photos by Hwang Song*

Vegetable harvest in a greenhouse.



The state of growth of trees is under observation.



Thread production is on the increase at the Songchon Silk Mill.



Pacesetter of Costume Culture



Various styles of clothes are designed.

DESIGNERS AND RESEARCHERS OF THE clothes institute of the Academy of Light Industry in the Democratic People's Republic of Korea are not sparing their wisdom to create designs of new-style clothes suited to the thoughts and feelings of the Korean people and their aesthetic tastes.

Choe Hyon Mi, a researcher of the Korean costume laboratory, says, "Our ancestors preferred light, soft and vivid colours to the deep. The Korean costume is characterized by unique, graceful and simple types, patterns and colours. Women's garments, in particular, reflect Korean women's character—gentleness, cheerfulness, liveliness and tenacity—and thus they draw the attention of costume experts around the world."

The Korean costume laboratory is creating designs of Korean-style skirt and coat suited to the character of Korean women. With skirts and coats of white, light pink, cream and other light colours adorned with patterns of various flowers including magnolia, which is the national flower of the country, grapevines, tree leaves, fish, cranes and so on, the designs are popular with women.

The costume style laboratory, too, has created designs of harmoniously decorated dresses of soft colours, overclothes of various forms for different seasons, and suits, all good to look at and convenient for movement.

Han Ji Hyang, a member of the laboratory, says, "We often go to experience the realities for the purpose of making designs of new clothes. There we acquaint ourselves with constitutional characters and various figures and tastes of different people and what colours and forms they demand, and introduce them in making designs."

Researchers of the men's costume designing and standard laboratory are also striving to create various forms of clothes suitable for men different in age, figure and facial features and for different seasons. They have developed designs of suits of bright colours adding to stamina and youthfulness and those of different forms suitable for different ages and builds, shirts more convenient for movement and quilted clothes of various sorts.

The institute compiled a book which gives a comprehensive introduction of excellent designs created by clothes producers and relevant units across the country, photos, designs of different forms of clothes and relevant common knowledge. And it has distributed it throughout the country, leading and helping the development of the Korean-style costume culture.

Sim Chol Yong

For Conservation of Water Resources

NOW WATER-RELATED calamities and crises caused by rapid global warming and the ensuing serious climatic change pose a great menace to the existence and activities of humankind.

According to the recent data, the water people can use decreases by 20% whenever the average global temperature rises 1°C owing to global warming. The amount is equivalent to that which can be used by 7% of the world population.

At present about 2.2 billion people are not provided with safe drinking water, and nearly 3.6 billion people are living in regions where water is in short supply for at least a month in a year. And it is predicted that the number of those who will live in such regions will increase to about 5.7 billion by 2050.

Water resources, however, can alleviate climatic change, so to conserve and make effective use of them is regarded as an important matter in the world.

Last year, on the occasion of the World Water Day, the United Nations Environment Programme called upon every country to actively conserve and make rational use of water resources in order to alleviate climatic change under the theme of "Water and Climatic Change."

In 1946, soon after their liberation from the Japanese imperialists' military occupation in August 1945, the Korean people completed in 55 days the improvement of the Pothong River, which had been called "river of disaster" and "cursed river." With this as a momentum strenuous efforts have been made to conserve and make effective use of water resources.

From the mid-1950s to the

early 1960s there were done a number of irrigation projects including the Phyongnam, Kiyang and Amnok River irrigation projects. In particular, in compliance with the decision of the plenary meeting of the Central Committee of the Workers' Party of Korea held in September 1958, large and small reservoirs and waterways were built through an all-people campaign. In the 1980s the Taedong River was changed into an artificial lake by erecting an 8-km-long dam across the sea.

And a large-scale circular irrigation system was established with the completion of the gravitational Kaechon-Lake Thaesong Waterway and linking of the already-existing large and small irrigation systems.

Later there were adopted the "Law of the Democratic People's Republic of Korea on Water Resources" in June 1997, the "Law of the Democratic People's Republic of Korea on Sea Pollution Prevention" in October 1997, and the "Fluvial Law of the Democratic People's Republic of Korea" in November 2002. All of them are geared towards establishing a strict system and order in the survey, development, conservation and use of water resources so as to fully provide water badly needed for the economic development of the country and the people's life.

Now efforts are being made to prevent pollution of water resources, and provide people with cleaner and safer water and a beautiful natural environment.

And hydropower stations have been built across the country including the 12 tiered power stations in the Chongchon River basin so as to minimize flood damage and make a positive contribution to the grain produc-



Jang In Ae.

tion of the country and the people's life.

Scientific research institutes such as the State Academy of Sciences have completed a technology of minimizing waste of water in the water supply system, ensured the scientific control of water consumption and made the water supply and drainage system IT-based, thus establishing a system which makes it possible to economize on water to the utmost and use it effectively.

Meanwhile, water-savers and flow meters have been installed in organs, enterprises and families, and industrial and domestic sewage is thoroughly purified. Water works, storm sewerage systems and sewage treatment facilities are built first in urban construction in accordance with the principle of giving priority to infrastructure over superstructure in construction in order to prevent water pollution thoroughly.

Besides, a Taedong River flood control system and a natural calamity control system have been established, thus making it possible to minimize flood damage and put water management on a scientific footing.

Jang In Ae, researcher of the Central Committee of the Nature Conservation Union of Korea

Kimchi AND FOLKLORE OF KOREA

KIMCHI IS A FAVOURITE TRADITIONAL DISH OF THE KOREAN people. When rice is representative of their staple food, kimchi is typical of their side dishes. It is now popular in other countries as well as Korea.



Essential for Every Meal

The Korean people have long had kimchi as an ordinary side dish as well as soup and soy sauce and bean paste. This can be known through their practice of preparing a table.

The traditional table includes *samchop*, *ochop*, *chilchop* and *kuchop*—*chop* means the unit of the number of side dishes served in lidded vessels at one time. *Samchop* means three side dishes; *ochop* five; *chilchop* seven; and *kuchop* nine. Rice, soup, kimchi, and seasonings such as soy sauce and peppered bean paste were not included in any categories because they were a must for the table.

As a main side dish kimchi was usually put on the table for ordinary people as well as royal families and aristocrats.

It was also put on the table for memorial service. *Koryosa* (History of Koryo) and other old books from the feudal Joseon dynasty (1392–1910) tell that kimchi was designated as one of the dishes for the table for memorial

service.

Meanwhile, the Korean people usually drank kimchi juice to rinse their mouth after eating meat or fatty food, and they usually ate rice cake or pancake with kimchi. They also ate noodle in kimchi juice.

As mentioned above the Korean people seldom thought it a sumptuous feast unless there was kimchi on the menu.

They still eat the side dish for any meal.

Kimjang, Annual Important Family Affair

A Korean saying goes that “Kimchi accounts for half the winter food.” This shows how important kimchi is in winter, and the Korean people have far more kimchi than they do in any other seasons.

In Korea winter is a long, cold season, and it is unfavourable for cultivating and storing vegetables. So the Korean people developed a method of storing vegetables a lot in autumn to eat them both in winter and spring.

Kimjang means kimchi making.

As ever before every family in the country makes kimchi in late autumn every year, which is regarded as an important family affair.

Tongguksesigi, an old book from the feudal Joseon dynasty, tells that kimchi was made in the tenth lunar month and that it was an important annual family affair along with *jangdamgugi* (making soy sauce and bean paste).

In late autumn any family across the country is busy preparing for making kimchi: They select and trim choice bok choy and radish, and prepare seasonings.

Kimchi made by Pak Myong Sil, head cook of Kallimgil Restaurant No. 5, Mangyongdae District, Pyongyang, has been rated as excellent at a kimchi contest, the kimchi event of a cuisine festival and other similar contests and festivals. The head cook says, “What is important in making kimchi is to do properly the primary pickling of bok choy in salt water, and prepare good seasonings. Red peppers

▶ are selected to be dried in the sun before being pulverized. And six-clove garlic bulbs are kept hanged in a shady place with good ventilation before being used. Besides, prepare ripe pine nuts, chestnuts and jujubes. The taste of kimchi depends on such good seasonings.”

It is a custom in Korea that relatives or neighbours come to help making kimchi. In late autumn women sit in a circle trimming bok choy, pickling the vegetable, cleaning the pickled and insert seasonings into between leaves of the vegetable—this is a distinctive scene that can be seen in Korea alone. The custom still remains good although an industrial method has been developed for kimchi making.

Different in Taste

Kimchi is somewhat fragrant, refreshing, sweet yet sourish, pungent yet pleasant and palatable.

Kimchi varies in method of making, material and taste by family and locality.

The one from the northern

region of Korea including North and South Phyongan and North and South Hamgyong provinces is quite refreshing.

In general kimchi juice was prepared a lot in the northern region to keep fully the fresh tastes of such main materials as bok choy and radish, but in the southern region pulverized red pepper, pickled fish and other seasonings were put in a lot to make the dish very palatable. Such being the reason, kimchi from the northern region, with much juice, is light yet extremely fresh in taste, and that from the southern region, with less juice, is red, pungent and strong in taste.

And different families make kimchi of different tastes because they are different in liking and palate.

The Korean people have long regarded the taste of kimchi as a criterion for assessing a family's food. So Korean women, when making kimchi, asked for advice from their neighbours or the elderly, thus learning the skill of making the dish. And after finishing the making of

kimchi, they sent some of their own seasonings and kimchi to their neighbours to exchange relevant opinions.

Mothers regarded it as important part of family education to teach their daughters how to make kimchi from their childhood. And there came into being the saying that a young woman should know how to make 12 kinds of kimchi before getting married.

Meanwhile, Korean women made efforts to make different kinds of kimchi to suit different likings and palates of their family members. They made watery plain kimchi for their old parents and put much less red pepper if it was for their little children. And they adjusted the amount of seasonings and fish for those who liked or disliked a fishy or pungent taste.

Now there still take place cuisine shows and festivals for the purpose of preserving the original taste of kimchi. This also serves as a good opportunity to learn one another's experience.

Choe Sol Mi



Scenic beauty of Inner Chilbo.

MT CHILBO (2)

Inner Chilbo

IN INNER CHILBO THE mountain ranges are not so long and the valleys are not so deep, so it is good for sightseeing. The centerpiece of the scenery is Chonbul Peak, “guarded” by rocks of various shapes—humans, animals, buildings, etc. From olden times the area has been widely known for its femi-

nine beauty.

Inner Chilbo is divided into four sections—Kaesimsa, Sangmaebong, Naewon and Isonam, all connected by roads and paths for the convenience of tourists.

Kaesimsa Section

It has such low valleys as Kumgang, Sudoam and Chonggye, and scenic spots with Chon-

bul Peak at the centre.

To reach this section you have to cross Paktal Pass with numerous bends. At the foot of this pass you will find a zig-zag belt of white rocks, 10 to 15 metres high, extending from east to west. Cross Paktal Pass feasting your eyes on this “snow-capped” area, and you will arrive at Kaesim Bridge leading to the Chonggye Valley.

▶ Hwanhui Ridge, a horseback-shaped ridge, lies at the starting point of the pathway which leads to the Kaesim Temple. See eastwards on top of the ridge, and high rocky hills will come in sight. Then you will exclaim, “Fantastic!” Hence the name *Hwanhui* (ecstasy).

There is a group of rocks, Hwanho Rock, on a hill north of Hwanhui Ridge. It resembles an array of travellers, who have come all the way to see the celebrated mountain. They look like cheering loudly at the

sight of the wonderful scenery. Hence the name *Hwanho* (cheer).

Walk some distance through a small valley southeast of Hwanhui Ridge, and you will see Pothak Rock. The rock resembles a mysterious gem on a table.

Located in the forests of Mt Pothak in Inner Chilbo, the Kaesim Temple was built in 826 in the period of Palhae (698–926) and repaired on later occasions. Inscribed on the list of national treasures, it comprises

the Taeung Hall which is the main structure, Simgom Shrine, Umhyang Pavilion, Kwanum Hall and Sansin Pavilion. Here you can see the Buddhist images and other relics, particularly an old birch bell with a curious sound.

Chonbul Peak is situated in the heart of Inner Chilbo. It is hemmed by such peaks and rocks as Mansa Peak, Jonggak Peak, Rahan Rock and Wonsungi (monkey) Rock.

Pak Thae Ho

Ssolmaethagi

KOREAN CHILDREN LIKE *Ssolmaethagi* (sledding) in winter. It was popularized in Korea in the Middle Ages. *Ssolmae* means sledge.

Sejong Sillok (Chronicles of King Sejong), a classic of the Korean nation, tells that during the 15th century, when the traffic was tied up with heavy snow in the Hamgyong provincial region, sledge riders were employed to transport supplies to the region so as to save the local inhabitants and cattle.

Sledges are divided into two kinds—one to ride on ice and the other on snow.

The first kind is usually 40cm long, 35cm wide and about 10cm high. It has two blades made of bamboo sticks, iron wire or metal.

Two sticks were used for sledding. The wooden stick was around 3cm thick and as long as one's sitting height with nails

driven at the end.

Later a sledge with a steering part came into being, making sledding more pleasant. It is divided into two kinds—one to be steered by hands and the other by feet. Another kind is large enough to carry two or three children.

There is also *oebalgi* (a single-blade sledge) to ride on ice. It is faster than a double-blade one, and can change direction quickly.

The sleigh to ride over snow was usually called *jjokbalgu* (a man-pulled sleigh) or *nunssolmae* (snow sleigh) in mountainous areas. It can usually carry four or five persons.

In winter, when the snow is coming down in large flakes, children sledge down a hill or perform skilled movements while riding a sledge on ice. This adds to the atmosphere of winter.

Children at the age of above ten compete with one another in sledding—to be the first to sledge to and back from a fixed point, a relay race and tag.

Tag is the most popular with children. When the game starts, the tagger chases children by sledge, and they should avoid being touched by the tagger, by pretending to go right before going left or in the other way. They can raise speed as they please on ice but cannot easily change direction, so the game is more interesting than others. This is why children play the game despite the cold weather of winter.

Ssolmaethagi is good for helping children not only endure cold and train their bodies but also cultivate bravery and agility.

The play is on the list of national intangible cultural heritage.

Rim Ok

Ho Jun and Tonguibogam

HO JUN (1546–1615) WAS AN EXPERIENCED physician and medical scholar. At 30 he was appointed as official of the pharmaceutical agency, the organ in charge of preparing medicines to be used in the royal palace during the period of the feudal Joseon dynasty (1392–1910). During the Imjin Patriotic War (1592–1598) he worked as the king's physician. In 1591 he worked out a new prescription for smallpox, saving many lives. In his thirties he compiled medical books. And he wrote and published *Onhaeduchangjibyo*, *Onhaethaesanjibyo* and *Onhaeguguppang*, helping spread knowledge of treatment.

In 1596 he started to compile *Tonguibogam* (Encyclopaedia of Traditional Medicine of Korea). The next year Japan reinvaded Korea, and medical officials dispersed. Thus the compilation of the book stopped temporarily. Ho, however, did not stop the compilation.

After the end of the war the king put him alone in charge of the compilation of the book, and provided him with over 500 medical books of the royal palace to refer to, thus offering the convenience to him.

Without caring for his private life, Ho made painstaking efforts to compile the book. But in 1608, just before he completed the compilation of the book, the king died, and Ho was exiled to a remote place for his failure to save the king as his physician. Even in the unfavourable conditions of the place of exile Ho continued the compilation of the book. At last his painstaking efforts of a dozen years bore fruit—the completion of the book in August 1610.

Tonguibogam of 25 volumes, as a compendium of the Koryo medicine, consists of five parts—internal treatment, external treatment, miscellaneous diseases, decoctions, and acupuncture and moxibustion. Chapters and sections are set according to diseases, and the theory of each disease and relevant prescription are written in the relevant chapters, thus making it possible to see the prescriptions clearly. And it describes single-medicine prescriptions and methods of acupuncture and moxibustion for different symptoms, and occasionally Ho's own experience in treatment so that they can be used practically.

What characterizes the book is that it fully crystallizes the essence of the existing medical books so that it is convenient and useful as a medical book, and that it puts main emphasis on physical training



and mental culture and regimen in keeping health while regarding it as secondary matter to use medicines, acupuncture and moxibustion. This principle of medicine permeates all the parts of the book.

The compendium describes in Korean the names of all medicines in the part of decoction to encourage the use of domestic medicinal herbs and medicines, thus making it easy to collect and use medicinal herbs; and it gives origins of the theories and prescriptions described in it so as to prove that they are not the author's subjective conjectures.

The publication of *Tonguibogam* helped develop the Oriental medicine a stage farther, and made a milestone to show the extent of development of Koryo medicine.

Ho turned 60 when he completed the book. He still wrote the medical books *Sinchanbyogonbang* and *Pyogyoksinbang*. The books were compiled for the purpose of treating acute febrile infectious diseases that were called *onyok* at that time. The contents of the books were correct and concise as compared with the existing medical books, thus greatly helping treat diseases.

Ho Jun, who made a great contribution to the development of Koryo medicine, died at the age of 69 in 1615.

Rim Ok



Children go sledding at the Masikryong Ski Resort in December 2018.

History Denounces

AFTER THE END OF THE Russo-Japanese war in 1905 the Japanese imperialists occupied Korea militarily and buckled down to establishment of colonial domination over the country. Under the pretext of “protection” they fabricated the illegal and invalid “Ulsa Five-point Treaty” by means of threat and intimidation, coercion and deception. In December 1905, Japan, under the cloak of the treaty, proclaimed “royal ordinance” No. 267 on “Regulations of the Residency-General and Board of Directors” consisting of 33 articles. On February 1, 1906 they officially set up the “residency-general in Korea” in Kyongsong (Seoul at present), and imposed rule by the “resident-general” over the country.

The “resident-general,” belonging directly to the Japanese king, was empowered to suspend and cancel Korean ordinances and treaties relating to diplomatic relations on behalf of the Japanese government. And by issuing “orders of the residency-general” he exercised the power to detain Koreans, order the use of armed forces, and the like.

The Japanese imperialists hurled huge armed forces into Korea in an attempt to consolidate the rule of the “resident-general,” and weakened the power of the Korean emperor systematically in his feudal government. They forced the feudal Joseon government to proclaim the ordinance on “forbidding approach to the imperial palace” for the so-called purpose of

suspending “free access” to the palace, and entrust the “guard” of the imperial palace and the emperor to the Japanese police. And they saw to it that the Koreans could not meet their emperor without their approval. By doing so they left no freedom of the Korean emperor, and put him under their control. At that time the supreme ruler of Korea was not the emperor of the feudal Joseon government but Japan’s “resident-general,” and the ruling organ was not the feudal Joseon government but Japan’s “residency-general.”

During the rule of the “resident-general” over the country the Korean people suffered indescribable misfortunes and sufferings. The Japanese imperialists mercilessly cracked down on and killed the anti-Japanese patriotic Koreans who they saw as a hindrance to their colonial rule. On the pretext of “suppressing rioters (righteous volunteers)” they intruded even remote mountain villages of the country as well as its major cities, conducting brutal “punitive operations” against anti-Japanese volunteer corps, burning down all villages where the volunteers had once camped and shooting to death unconditionally those who had been related with them.

The ringleader of such massacres was the “resident-general.” The first “resident-general” Ito Hirobumi ordered the officers of the Japanese ground force who had been mobilized for the “suppression of rioters” to treat

the Korean volunteers as the main culprits of the local disturbance and suppress them mercilessly.

Meanwhile, the Japanese imperialists cooked up the “Law on Mining” and the “Korea-Japan Fishing Agreement,” plundering gold, silver, copper, coal and other underground resources and marine resources of Korea on a large scale. They also organized the “Oriental Development Company of Japan” to wrest land from Korean peasants randomly, and established the Bank of Korea, seizing the finance of the country and hindering the development of the national capital. Besides, they issued the “Ordinance on Primary Schools” and the “Ordinance on Public Schools” to enforce colonial slave education, and forcibly closed public schools that had patriotic and anti-Japanese tendencies.

Moreover, the Japanese imperialists destroyed and plundered a tremendous amount of cultural assets of Korea.

They committed unprecedentedly hideous and inhumane crimes against the Korean nation during their 40-odd-year-long colonial fascist rule.

Japan, however, is distorting and whitewashing its history of crime, far from making apology and reparations for its past crimes. It is natural that the insular country is now shunned by the Korean people and the other sectors of the international community.

Kim Kwang Song

Ryongwang Pavilion

THE RYONGWANG PAVILION in Taedongmun-dong, Central District, Pyongyang, is one of the most excellent pavilions remaining in Korea, a relic representative of the pavilion architecture in the middle ages.

Built in the period of Koguryo (the first feudal state in Korea that existed from 277 BC to AD 668), it was reconstructed in the period of Koryo (another feudal state that existed from 918 to 1392) and the feudal Joseon dynasty (the last feudal state in the country that existed from 1392 to 1910). The present building is the one rebuilt in 1670 after its predecessor was burnt down during the Imjin Patriotic War (1592–1598).

The pavilion has a unique layout. With a 7-shaped layout, it looks like two lofts connected obliquely. With a traditional Korean-style gable roof, it is

decorated with *morutan-chong*, or a moderate form of traditional decorative painting, as a whole. And its beams are gorgeously decorated with silk-texture patterns.

From ancient times the pavilion has been well-known as one of the eight scenic spots in North and South Phyongan Provinces and Jagang Province. It was also called Jeil (Number 1) Pavilion and Manhwa (all kinds of flowers) Pavilion.

It is exciting to mount the pavilion with a calligraphic hanging board which reads *Chonha-jeilgangsán* (the most picturesque place in the world) and see the scenery of the Taedong River below.

The pavilion has a board inscribed with two lines of a poem composed by Kim Hwang Won, a poet of the Koryo dynasty. Standing on the Pubyok Pavil-

ion on the bank of the Taedong River he, captivated by the surrounding scenery, tried to compose a poem but wrote only the two lines and snapped his brush, tearfully lamenting that his talent was too poor to describe the scenic beauty of Pyongyang.

The Ryongwang Pavilion is also associated with the Korean people’s patriotic struggle against foreign invaders. A story tells that before the pavilion famous general Kim Ung So and the famous *kisaeng* (entertainer) Kye Wol Hyang beheaded the chief of the Japanese invaders by employing a crafty trick during the Imjin Patriotic War.

At present the pavilion is being preserved as a national treasure, and serves as a cultural recreation ground. There are other cultural relics including the Taedong Gate and the Pyongyang Bell in its vicinity. □



