FOREIGN TRADE

OF THE DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA

JUCHE 107 (2018) 2

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Moranbong Blood-purifying Wristwatch

Moranbong blood-purifying wristwatch is fitted with an apparatus for purifying blood by means of short-infrared rays.

It is effective in purifying blood, making cerebral and cardiac blood circulation smooth, enhancing immunofunctions, and preventing various inflammations.

Wearing the wristwatch in everyday life becomes precisely the treatment course.

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Contents

FOREIGN TRADE
OF THE DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA
QUARTERLY JOURNAL
Juche 107 (2018) No. 2 (447)

2. Tanchon Mining Machine Factory
4. Diamond Crown
5. Efforts to Make Foreign Trade Multilateral
6. Kwail County, DPRK's Leading Fruit Production Base
7. Bright Prospect of Developing Mubong Special Zone for International Tourism
8. Cosmetics Production Put on a Modern, Scientific and Industrial Footing
10. Rason Economic and Trade Zone
11. Industrial Water Analyser
11. Domed Ball for Drilling Bit
12. Ryongop Joint Venture Company
14. *Taesongsan*-brand Sports Goods
15. Inorganic Nano Filter
16. Pyongyang Kim Jong Suk Silk Mill
18. Hydrogenated Water Maker
19. Harmful Gas Analyser
20. Pyongyang Plastic Goods Trading Company

22. Functional Health Drinks
23. Natural Health Food *Blood-Invigorating Flavone*
23. Natural Liver Protector *Turmeric Curcumin*
24. Rason Sahyangsan Aquatic Processing Company
26. Regulations of the Democratic People's Republic of Korea on Environmental Protection in Economic Development Parks
29. Health Foods Made of *Cordyceps Sinensis*
30. Historical Relics in Kaesong
32. Ragwon-410, Plant Growth Stimulator

Cosmetics Production

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Tanchon Mining Machine Factory

The Tanchon Mining Machine Factory specializes in the production of large machinery and equipment needed at the mines, factories and enterprises in the Tanchon area of South Hamgyong Province.

The factory has sufficient processes for iron and steel casting, processing, pipe-making and so on, and manufactures various machines and facilities as well as their components for production, processing and transportation of mineral ores.

It has recently augmented its production foundations with an additional line for producing ferroalloy using manganese ore abundant in the country, a continuous casting machine for the production of pulverizing balls, and large-capacity electric furnaces.

Large ore-dressing machines and parts for pulverizing, sifting, and flotation, electric cars, trams and their wheels, belt rolls, blowers, exhausters, reduction gears, compressors, magnesia clinker production facilities, and other machinery and equipment produced by the factory are well commented in the mines, factories and enterprises for their excellent technological specifications and stability.

It has conducted technical reconstruction to produce high-quality welding rods needed for manufacturing ordered equipment.

It also puts an emphasis on developing new products.

The low-friction resin brake slipper for electric and tram cars developed by the factory has a high resisting intensity and long life span, so it was registered as an invention of the DPRK in Juche 101 (2012).

The Tanchon Mining Machine Factory ensures sufficient supply of machines and facilities needed at the Komdok Mining Complex, Taehung Youth Hero Mine, Tanchon Magnesia Factory and other mines and factories in Tanchon to normalize their production.

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Diamond Crown

Mirae Science & Technology Company developed a diamond crown by applying advanced technologies of surface metallization and caking-metal alloying.

It is a highly efficient boring tool to be used in geological, underground water, geothermal surveys.

Technical specifications:

Diamond concentration: 70 – 110%
Hardness: HRC 10 – 45
Diameter: 59/41, 76/59, 76/54, 110/93mm
Form of base: inner projection, concentric circle, flat bottom
Piercing length: over 50 metres for 7th-grade rock, over 30 metres for 9th-grade rock
Piercing speed: over 1.6m/h on an average
Core recovery: more than 95%

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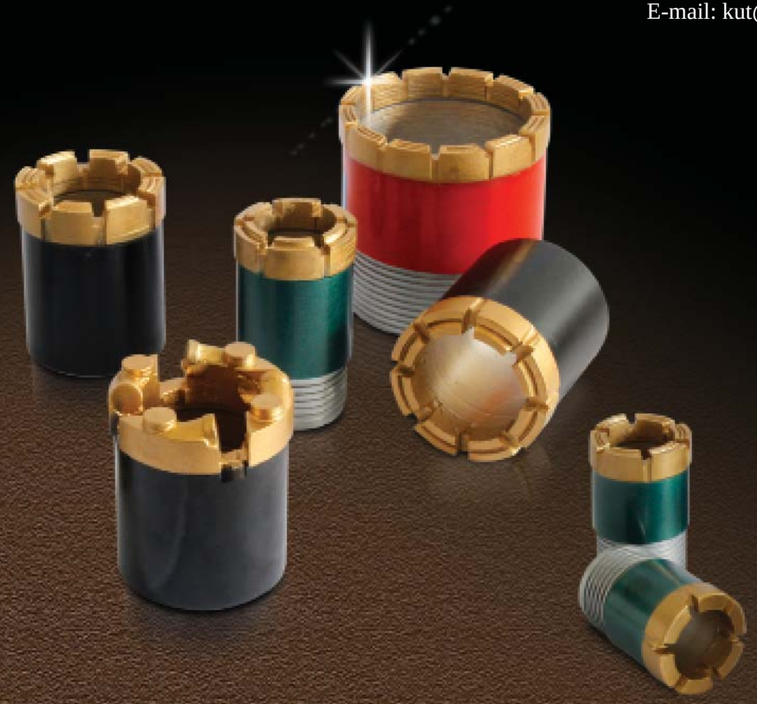

Efforts to Make Foreign Trade Multilateral

It is a consistent stand of the government of the Democratic People's Republic of Korea to expand and develop foreign trade with many countries in a multilateral way on the principles of independence, equality and mutual benefit.

The government of the DPRK has advanced the policy of making foreign trade multilateral and concluded multipartite and bilateral trade agreements while taking positive and practical measures for its implementation.

It is vigorously conducting trade with not only neighbouring countries and other countries in Asia and the Middle and Near East within short distances of transportation but also those in Europe and Latin America that are friendly to it.

Abundant natural resources in the DPRK and its multi-faceted, comprehensive and independent economic structure firmly guarantee a multilateral development of the foreign trade.

There are lots of ferrous and nonferrous metals, including iron ore, lead, zinc, molybdenum, and rare earths as well as graphite, magnesite and other nonmetallic minerals in great demand at international markets. As it is bounded by seas on three sides, the country is rich in aquatic and tourist resources and is endowed with advantages for maritime transportation.

During the past decades it laid solid material and technological foundations for a self-supporting national economy with a multi-faceted and comprehensive economic structure capable of satisfying the material demands of economic development and the people's livelihood through domestic production.

In the new century the government of the DPRK gave absolute priority to the development of cutting-edge science and technology and achieved the international-level successes in IT, nanotechnology, bioengineering and other fields. Based on them, it has laid the material and technological foundations for producing high-purity nonferrous metals, heavy machinery and equipment, precision machines, electronic goods, metal and chemical products and health foods in larger amounts for export.

As the national economy expands and develops, it grants industrial establishments and scientific research institutes, direct producers of export goods and also consumers of imported goods, rights to trade and takes positive measures for encouragement, thus creating favourable environment for foreign trade by fully ensuring the ranges and quantity of exports and imports necessary for the economic development and promptly coping with the fast-changing demands of international markets.

Along with this, it encourages trading companies to increase their exports items and gives preferential treatment to those engaged in the IT development and processed goods export. In case of the import of cutting-edge machines and facilities, reduction and exemption of customs duties and other preferential conditions are also available.

It also ensures that trading units combine in a reasonable way several external economic activities, including joint venture investment, external construction, and scientific and technological exchange, with their trade activities and takes state measures for preferential treatment and encouragement. It thus offers favourable environment and conditions for foreign businesses engaged in trade with the DPRK.

Trade missions and branch offices residing in foreign countries make the trading companies keep regular contacts with foreign businesses while promptly conducting advertising and contracting activities.

Establishment of effective systems for trade cargo transportation, payment, and insurance and their steady improvement give a spur to the effort to make foreign trade multilateral.

In keeping with the increasing amount of trade cargoes, vessels and other means for marine transport are being increased and modernized. A regular system of payment of trade goods by enhancing the roles of banks is also established.

The government of the DPRK supervises that credit should be maintained in foreign trade.

All the trading units make realistic contracts and maintain credit-first principle in their implementation while ensuring proper management of claim and debt and redemption of debts.

In the future the government of the DPRK will further promote the multilateral development of foreign trade on the equal, mutual benefit and credit-first principles.

Kwail County, DPRK's Leading Fruit Production Base

Kwail County in South Hwanghae Province on the west coast of Korea is a renowned fruit production base in the DPRK. The county's name *kwail*, fruit in Korean, is derived from the fact that the county itself is one large orchard.

Kwail County that has advantages for fruit farming has so far made remarkable development.

It ensures that *hukposan* fertilizer and other bio-fertilizers are produced in large quantities to apply every fruit tree, windbreaks are created along the coast and various agrochemicals are developed and manufactured. As a result, it increased the fruit yield per hectare 2.5 times greater than the previous year, and apple production 5.8 times greater.

The county's pomological institute makes great efforts to put the fruit farming on a scientific, modern and intensive footing. To this end, it widely introduces scientific and technological achievements to fruit farms, cultivates superior strains and improves seeds. It also establishes a unified system of control over the workteams to do farming in a scientific way as suited to meteorological and climatic conditions.

It raises the level of overall mechanization of the farm work by providing modern machines, including vehicles for transportation, forklifts, and motor sprayers.

It harvests 70 – 80 tons of fruit per hectare, and over 200 apples on average hang on one tree, 300 or more at the maximum.

It takes measures to breed good strains of fruit in larger numbers, raise the soil fertility and control the pest.

It also makes strenuous efforts to modernize the fruit-processing lines, establish food production cycle based on fruit farming and stockbreeding, perfect dripping irrigation and create flawless windbreaks.

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Bright Prospect of Developing Mubong Special Zone for International Tourism

Established in April Juche 104 (2015), the Mubong Special Zone for International Tourism is situated in the Mubong workers' district in Samjiyon County, Ryanggang Province, in the northern part of the DPRK. The Mubong area that covers over 20km^2 is planned to develop into special zone for international tourism within the period of 50 years. The Samjiyon Airport is nearby, and it is 60km from the zone to Mt Paektu.

Mt Paektu, one of major tourist attractions in the special zone, is located in the northwestern part of Samjiyon County. Created in the wake of several volcanic eruptions, it is the highest mountain in Korea, with an elevation of 2 750m above sea level and soaring imposingly and solemnly in the natural primeval forest. It is called the sacred mountain of the Korean revolution, the ancestral mountain of the Korean nation.

Twenty odd peaks, 2 000m or so above sea level, and with steep gradients of more than 60 degrees, including Janggun, Hyangdo, Paegun, and Chail peaks, surround Lake Chon on top of Mt Paektu.

On Janggun Peak, major peak of Mt Paektu, one can enjoy the fascinating sight of the rising sun casting a red glow over the vast expanse of steep cliffs, dense forests, peaks, valleys and Lake Chon.

Lake Chon, among the largest lakes in alpine regions of the world, is 14.4km in circumference, 9.16km^2 in area and 384m at its deepest. One feels an impulse to dip hands in its limpid water.

There are the Paektu Falls, Sagimun Falls and other waterfalls flowing from Lake Chon and presenting a scenic masterpiece in the alpine regions.

Kaleidoscopic weather is also one of wonders unique to Mt Paektu.

A terrible storm breaks out on the placid Lake Chon, heavy black clouds appearing out nowhere and disappearing in the blink of an eye. A clear blue sky unfolds here and snowflakes are unfolding there.

Rhododendrons blooming in snow around Lake Chon and chars swarming in it, Paektu and Paegam hot spas known as good for health and efficacious in medical treatment, and other unique features in the area attract the people's attention.

Found in the dense forests in Mt Paektu are more than 600 plants, tens of species of animals such as tiger, bear, roe deer, and musk deer, and nearly 200 species of birds, including *Srnia ulula*, owl and woodpecker. Mt Paektu was registered as a world biosphere reserve in Juche 78 (1989).

Mt Paektu is associated with the revolutionary history of President Kim Il Sung who organized and led the anti-Japanese armed struggle to liberate Korea from Japanese military occupation. It is the sacred mountain where the Korean revolution originated. It has Kim Jong Il's birthplace in the Paektusan Secret Camp as well as many revolutionary battle sites during the period of the anti-Japanese armed struggle.

Tourists to the zone can enjoy natural scenery of Mt Paektu and Lake Mubong in the forests 1 000m above sea level, primeval forests within the zone, and taste high quality and refreshing Mubong mineral water whose major source is Lake Chon.

According to the master plan, the special zone is to be built as a sports and ecological tourist resort and starting base of the tourist route linking Mt Kumgang, world-famous tourist attraction, and Mts Chilbo and Myohyang. Therefore, the zone will be furnished with service facilities including a hotel with an accommodation of 10 000 people, and sports facilities such as ski run, horse race course, shooting range, golf course and swimming pool.

At present preparations for installing several residential quarters and public buildings outside the development zone are under way.

For the successful development of the special zone, the management committee was organized in Juche 105 (2016), and brisk cooperation activities with foreign investors are being conducted.

The mode of development is either a joint venture with a DPRK enterprise and foreign investor, or solely by a DPRK enterprise or a foreign investor.

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Cosmetics Production Put on a Modern, Scientific and Industrial Footing

The staff reporter of the *Foreign Trade of the Democratic People's Republic of Korea* had an interview with Choe Hyon, manager of the Pyongyang Cosmetics Factory, which has developed into a centre of the country's cosmetics industry by dint of scientific and technological strength as required by the era of the knowledge economy.

Reporter: I'd like to know about the factory's material and technological foundations.

Manager: The factory as befits a modern and comprehensive cosmetics producer is equipped with over a thousand sophisticated machines for producing a wide range of cosmetics as suited to the tastes and demands of the people.

The factory's production lines, ranging from raw materials mixing and infusing to packing, are all automated and germ- and dust-free.

We produce not only ordinary cosmetics, but also those for skin protection and functional use, makeup, hair, and cleansing, and toilet soaps, through automated and flowlined processes.

A large-capacity production line of cosmetic containers is also flowlined.

The shop floors and corridors are glass-screened, and sanitary passages are built for germ- and dust-free environment.

We have established an integrated manufacturing and management information system at a high level, so as to make a comprehensive and scientific analysis and prediction of production command and business operation and thus ensure the maximum profit.

The factory's buildings are all green and energy-saving.

Reporter: I want to know about your factory's business operation system in detail.

Manager: The factory is relying on cosmetics research institute and analysis station in operation.

The cosmetics research institute plays a pivotal role in business operation by conducting researches for developing new products, improving quality of the products and supplying raw and other materials and additives by the factory's own effort.

It is directing efforts to developing less-irritating and functional cosmetics in keeping with the worldwide trend.

It has recently developed anti-aging cream, whitening lotion, acne-treatment cream and aerosol hair spray and other scores of new products. Improvements are made for makeup cosmetics with the introduction of nano and surface treatment technologies.

Kaesong Koryo insam, wormwood, aloe, clove and other natural resources are widely applied for making functional cosmetics.

After developing new products and improving the quality of the existing ones, the research institute ensures that their rational mixing proportions, standard operation manuals and other data are input into the integrated manufacturing system and applied to production.

The factory's cosmetics analysis station also plays an important role.

It is equipped with a variety of modern facilities for analysis, measurement and test, including liquid chromatographic mass analyzer and spectrophotometer for transformation, for qualitative and quantitative analysis of cosmetics and raw materials, detection of harmful substances and scientific assessment of effectiveness.

In this way, the cosmetics research institute and analysis station determine the scale of production and quality of products.

Reporter: You convince me that your factory is a technology-intensive one with the integration of scientific research and production.

Your *Unhasu*-brand cosmetics are diverse in kind and excellent in quality, and their packaging is also attractive.

Manager: The design office at the cosmetics research institute creates a lot of packaging designs that are convenient and attractive.

The factory will intensify the research and increase the production as befits the centre of the country's cosmetics production, thus making our cosmetics more favoured by the people and varied in kind.

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RASON ECONOMIC AND TRADE ZONE

The government of the Democratic People's Republic of Korea has made strenuous efforts to develop and operate scores of economic development parks and economic and trade zones including the Rason Economic and Trade Zone.

The Rason Economic and Trade Zone that was established by Decision No. 74 of the Administration Council of the DPRK in December Juche 80 (1991), is situated on the lower Tuman River in the northeastern part of Korea, bordered on Hunchun, Jilin Province, China, and Khasan of Russia in the north.

Its geographical location and traffic condition offer immense advantages as a hub of land and marine transportation in Northeast Asia, a bridgehead linking Asian-Pacific region with Europe and North America, and a golden triangle.

The government of the DPRK promoted Rason to a municipality in January Juche 99 (2010), and proclaimed the Law of the Democratic People's Republic of Korea on the Rason Economic and Trade Zone and relevant regulations so as to turn it into an international zone of trade, investment, transit transportation, finance, tourism and services, thus providing legal foundations and institutional environment for foreign investment.

The law was amended and supplemented by Decree No. 2007 of the Presidium of the Supreme People's Assembly in December Juche 100 (2011). It stipulates the fundamentals, development of the zone, management, establishment of enterprises, economic and trade activities, customs duties, currency and finance, incentives and preferential treatment, and so on.

The government consistently pushes ahead with the work to provide necessary economic conditions for the zone to be developed into an international one.

Occupying an area of 470km^2, the city has Rajin Port with an annual handling capacity of 6 million tons of cargoes, Sonbong Port with a handling capacity of 3 million tons of oil and cargoes, and Ungsang Port with a handling capacity of 500 000m^3 of timbre.

The government also provides those who invest in the zone with preferential treatments and encourages investment in the fields of industry, agriculture, construction, transportation, communications, science and technology, tourism, finance and service.

Over a hundred foreign businesses in the zone in the form of contractual or equity joint venture and sole foreigner's business are engaged in transit trade, aquatic products and garment processing and other economic and trade activities while conducting energetic economic cooperation and development.

Rajin - Wonjong Road (50km), Wonjong - Quanhe Border Bridge, and Rajin Port - Khasan Railway (50km) are constructed to link Rajin Port with Russia and China. Wharf No. 3 of Rajin Port capable of handling 2 million tons of cargoes every year is also in operation.

The Rason Economic and Trade Zone abounds with tourist resources.

There are many historical relics at Pipha, Kulpho and Ungsang dating from the primitive, ancient and medieval ages, monument at Sungjondae erected in 1882, Kongju Fort built between 14th century and 15th century, Josanjin Fort, and Uambo Fort. Distinctive tourist resorts, bathing resorts, restaurants, and hotels are found along the coast, thus offering favourable conditions for tourism.

Foreign tourists are attracted by tourism on diverse themes, such as Rason - Hunchun (China) - Khasan (Russia) tour, investment comprehension tourism, tourism by cycle and automobile, and tourism for experiencing labour.

The zone's bathing resorts with clean environment and beautiful scenery invite a lot of people to enjoy bathing, diving and boating.

There are Al Island sea bird reserve inhabited by such species as seagull, murre, *Cepphus carbo*, cormorant, and *Cerorhynca monocerata*, and natural monuments including Uam sea-cat, Uam wild cherry stock, and Wonjong sweet brier group.

It is a steadfast stand of the government of the DPRK to develop the Rason Economic and Trade Zone into an international zone so as to expand the foreign economic relations and strengthen economic cooperation and exchange with foreign countries.

The government of the DPRK will, in the future, develop good neighbourly relations with all the countries that respect its national sovereignty and provide preferential conditions and favourable climate for investment to foreign investors interested in the zone.

Ryongop

Joint Venture Company

Ryongop Joint Venture Company was founded in June Juche 102 (2013) to produce and export furfural.

Furfural, $C_5H_4O_2$, is a colourless, highly combustible and volatile oily liquid. This organic compound is widely applied in chemical, oil processing, metal, machine-building, electric-power, pharmaceutical and light industries, and agriculture as raw and other materials. It is used as additives for refining and fodder, as well as materials for binding, growth promotion, antiseptics, germicide, disinfectants, herbicide and insulators.

Furfural serves as a basic material for over 1 600 products, 200 odd medicines among them.

The company has established production lines by means of vegetable materials such as corncobs and cornstalks easily available in the country.

It produces furfural through the automated and flowlined processes of raw materials grinding and feeding, acid-diluting, hydrolyzing, simple distillation, neutralizing and refining.

It is equipped with advanced analyzing and measuring facilities to ensure scientific analysis and inspection of its products to conform to the international quality standard.

Furfural produced at the company is 99.98% in purity, an international standard for export.

The company is going to establish additional processes of producing organic compound fertilizers with by-products of the existing processes.

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Taesongsan-brand Sports Goods

Taesongsan is a brand of sports goods produced at the Pyongyang Sports Goods Factory.

The sports goods of the factory fully conform to international standard in quality, vary in kind and pattern, and enjoy great popularity among the people.

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Inorganic Nano Filter

The Mirae Science & Technology Company developed an inorganic nano filter by applying up-to-date facilities and nano technology.

With kaolin as its composition, the filter has nanometre-size holes to purify the fluid as well as separate and concentrate valuable materials.

It is used in the elimination of bacteria and viruses, separation and refining of thermo-sensitive bioactivators and medicine, purification of reagents, and anhydration of organic solvents. It is also applied to create dust- and germ-free areas and refine various kinds of industrial waste water and oil.

Technical specifications:

Composition: Al_2O_3, SiO_2
Filter hole size: up to 2nm
Permeability: 50L/m^2.h
Working pressure: 1MPa

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Pyongyang Kim Jong Suk Silk Mill

Pyongyang Kim Jong Suk Silk Mill has made proactive efforts to put production lines on a modern and scientific footing, expand and newly establish several lines, thus increasing the production capacity, improving quality and widening the range of goods.

It increased its production capacity by automating cocoon-cooking machines and updating the program for automatic silk reeling machines. It standardized the water temperatures in conformity with the specific features of various kinds of cocoon to improve the silk quality.

It also introduced modern and high-speed machines, such as pneumatic machines, into silk spinning process, while modernizing spreader, carding and other machines to increase the production of silk wool and yarns.

It manufactured by its own efforts necessary machines and facilities to produce a variety of sanitary goods and silk quilts.

Silk yarns of the mill are white with an elegant sheen, and have good extension and intensity. Each bundle of yarn weighs 200 grams, and they are packed by 5kg, 10kg and 30kg in weight.

Silk products of the DPRK are in great demand, as they are soft, warm, light, highly permeable to air, moisture-absorbent, and anti-bacterial.

Kumgangsan is the trademark of the mill's silk products that are exported to many countries.

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Hydrogenated Water Maker

The Ryonmot Technology Development Company has newly developed a hydrogenated water maker by adopting electromagnetic wave utilization, intelligent clearing and other cutting-edge technologies.

The maker is composed of various devices for filtering mineral matters, sterilizing, automatically removing fur, and controlling time, as well as a microbubble-producing electrode and its retaining board.

The maker produces hydrogenated water, 7 – 7.6 in pH value and 5 – 6 in the degree of association of water molecule.

The hydrogenated water helps retain the level of pH 7.4, most suitable redox equilibrium for health, by eliminating active oxygen and excreting any residues from the body. It has no contraindications.

Regular drink of hydrogenated water treats and prevents diseases caused by active oxygen, including cerebral infarction, cardiac infarction, heart attack, diabetes, cerebral hemorrhage, cerebral thrombosis, senile dementia, malignant tumor, metabolic diseases, rheumarthritis, and skin diseases.

In case of radiation damage, the water immediately acts with malignant active oxygen created by ionizing radiation and excretes them.

Treatment of crop seeds with hydrogenated water reduces the damage from salt stress caused during the germination and increases the crop yield.

The hydrogenated water is used for drinking, facial treatment and disinfection. The maker can use 20 times once charged.

The product obtained a DPRK patent in Juche 105 (2016).

Technical specifications:

Input voltage:	100 – 240V
Input frequency:	40 – 60Hz
Hydrogen solubility in water:	800 – 1 200ppb
H_2 retaining time:	1h
Service life:	10 years

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Harmful Gas Analyser

The harmful gas analyser conducts real-time analysis of harmful gases on production sites and in polluted areas and sends data to computer by either wire or wireless communications.

It has sensors for detecting sulfurous acid gas, carbon dioxide and other harmful gases and an analytic device.

It is used to prevent personal injury by gas explosion and poisoning accidents.

Technical specifications:

Power:	AC 100 – 240V, DC 12V
Display mode:	LCD
Power consumption:	1W
Analysing time:	2 min
Analysing accuracy:	0.1ppm
Communications mode:	RS-485, ZigBee
Weight:	0.8kg

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PYONGYANG
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The Pyongyang Plastic Goods Trading Company is engaged in export and import activities on behalf of the Pyongyang Daily Necessities Factory.

It exports the factory's plastic goods, including toothbrushes,hairpins, bags, raincoats, PVC pipes in various sizes, PVC and ethylene sheets, and high-density plastic platen. Its import items include dies for plastic goods, PBT, PP and PVE resin, DOP plasticizer, bare copper iron and other materials and equipment needed for the factory's operation.

The factory's production lines are fully equipped with modern automatic injection and extruding machines, and high-precision processing machines.

Sorikkot(snowflake)-brand toothbrushes are made with bristle yarn of various intensities to satisfy the users of different ages, and *Cosmos*-brand hairpins are popular with women, as they vary in kind, shape, pattern and colour and are high in quality.

The factory directs great efforts to developing functional products, such as health-promoting hairpins, nano-gold toothbrushes, motor toothbrushes, and nano-gold buckets.

The Pyongyang Plastic Goods Trading Company conducts its trade activities aimed at modernizing the factory's machinery and equipment under a long-term plan and promoting exchange and cooperation with many foreign countries.

Functional Health Drinks

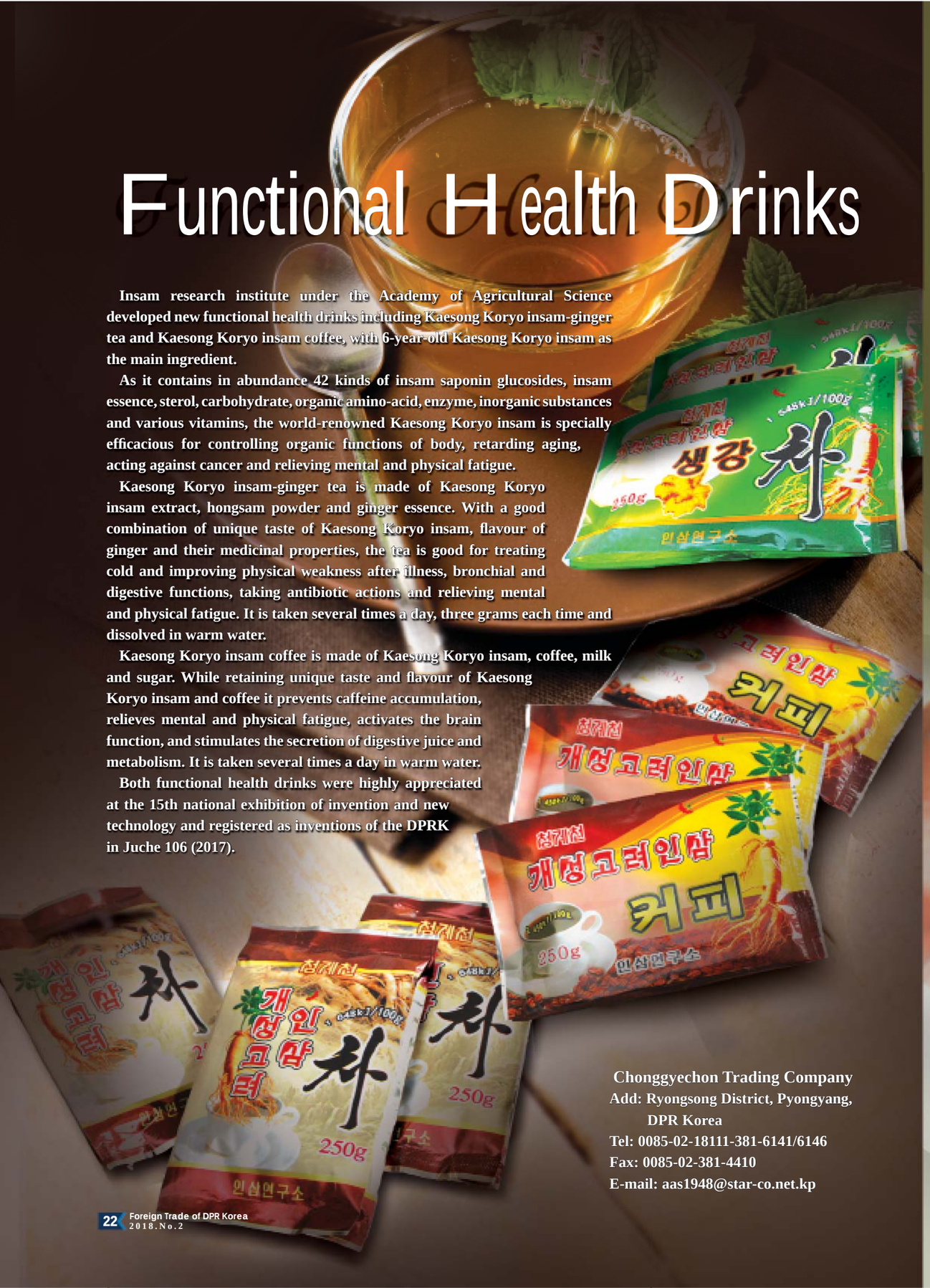
Insam research institute under the Academy of Agricultural Science developed new functional health drinks including Kaesong Koryo insam-ginger tea and Kaesong Koryo insam coffee, with 6-year-old Kaesong Koryo insam as the main ingredient.

As it contains in abundance 42 kinds of insam saponin glucosides, insam essence, sterol, carbohydrate, organic amino-acid, enzyme, inorganic substances and various vitamins, the world-renowned Kaesong Koryo insam is specially efficacious for controlling organic functions of body, retarding aging, acting against cancer and relieving mental and physical fatigue.

Kaesong Koryo insam-ginger tea is made of Kaesong Koryo insam extract, hongsam powder and ginger essence. With a good combination of unique taste of Kaesong Koryo insam, flavour of ginger and their medicinal properties, the tea is good for treating cold and improving physical weakness after illness, bronchial and digestive functions, taking antibiotic actions and relieving mental and physical fatigue. It is taken several times a day, three grams each time and dissolved in warm water.

Kaesong Koryo insam coffee is made of Kaesong Koryo insam, coffee, milk and sugar. While retaining unique taste and flavour of Kaesong Koryo insam and coffee it prevents caffeine accumulation, relieves mental and physical fatigue, activates the brain function, and stimulates the secretion of digestive juice and metabolism. It is taken several times a day in warm water.

Both functional health drinks were highly appreciated at the 15th national exhibition of invention and new technology and registered as inventions of the DPRK in Juche 106 (2017).



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Natural Health Food
Blood-invigorating Flavone

Blood-invigorating flavone is a health food made of scutellarine and ten odd flavonoid extracts.

It cures microvascular circulatory disorder and strengthens vascular endothelial function, so as to decrease the raised blood coagulation and lower the cholesterol and neutral fat of blood. In particular, it lowers the platelet glycoprotein manifestation ratio, ADP induced platelet aggregation and fibrinogen content of plasma, and prevents lipopexia among those suffering from hyperlipemia or alcoholic fatty liver.

It is very effective in the prevention of thrombosis, cerebral blood circulatory disorder, hyperlipemia, fatty liver, chronic kidney disorder, sequelae of cerebral injury and other diseases, headache, dizziness, numbness of hands and feet, fatigue and the like.

One pill of blood-invigorating flavone contains 50mg of flavonoid, 79mg of microelements and 18mg of organic acid.

Two or three pills are taken thrice a day.

Pyongyang Analytic Technology Company
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Natural Liver Protector
Turmeric Curcumin

Pyongyang Analytic Technology Company
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Turmeric Curcumin is a health food made of effective substances extracted from such herbs as turmeric and *Silybum marianum* by means of the cutting-edge technologies of extraction and emulsification.

It contains curcumin and silimarine efficacious for liver protection.

Curcumin lowers the lipid contents of liver, protects its cellular membranes and improves cleaning ability of low density lipoprotein. It also promotes bile secretion and inhibits damage of liver cells by anti-oxidation action.

Silimarine enhances the regenerative power of damaged liver cells and improves insulin resistance.

As it helps to strengthen the oxidation course of fatty acid and inhibit the synthesis of fat in the liver, *Turmeric Curcumin* is very effective in protecting the liver and preventing chronic hepatitis, liver cirrhosis and cholangitis.

It is recommended to take one pill, three times a day, after meal.

Rason Sahyangsan Aquatic Processing Company

The Rason Sahyangsan Aquatic Processing Company engages in aquatic production and processing and has a large storage capacity.

The company is exerting efforts into capacity-building of existing vessels for catching fish and crabs and introducing scientific fishing methods, thereby increasing the amount of fish catch. It has a cage-net fish farm of several hundred hectares for breeding rainbow trout, Atlantic salmon, Pacific salmon, Ryongjong fish, carp and others.

It has several processing grounds equipped with lines of shelling off, washing, steaming, arranging and others, and several thousand tons of fish, including *Chinoecetes opilio*, urchin eggs, squids, *Pleurogrammus azonus*, and grey mullet, are processed every year.

It is replenishing production processes with modern and efficient machinery and expanding the cold-storage capacity to several thousand tons, thereby turning out a large amount of frozen and dried aquatic products for export.

The fry-spawning ground of several thousand square metres built at the company has an IMS control room, analysis lab, hatchery, indoor ponds with an area of several hundred square metres for growing newly-hatched fry and other fish.

By establishing a scientific system of spawning the company grows fishes of economic significance and superior breeds of trepang, shellfish and crab for cage-net fish farming and shallow-sea culture.

The company also engages in freight delivery, agricultural products and foodstuff processing, public services, serpentine processing, bonded sale of rolling stock, production and sale of LED lights and other various business categories.

Rason Sahyangsan Aquatic Processing Company

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Regulations of the Democratic People's Republic of Korea on Environmental Protection in Economic Development Parks

Adopted by Resolution No. 165 of the Presidium of the Supreme People's Assembly on February 19, Juche 103 (2014)

Chapter 1 General

Article 1 (Mission)

These regulations are adopted for the purpose of protecting natural and ecological environment and providing people with cultured and hygienic living environment by establishing strict discipline in creation and preservation of natural environment and prevention of environmental pollution in the economic development parks (EDPs).

Article 2 (Application)

These regulations shall be applied to institutions, enterprises, organizations, foreign-invested enterprises (hereinafter called "enterprises") and citizens and foreign individuals (hereinafter called "individuals").

Article 3 (Environmental Protection Organ)

Environmental protection in EDPs shall be undertaken by their management bodies under the guidance of provincial (or municipality directly under the central authority) organ of land and environmental protection.

An EDP management body shall be responsible for environmental protection in the EDP.

Article 4 (Giving Priority to Environmental Protection)

Enterprises and individuals in an EDP shall take measures for environmental protection prior to development, construction, production and service and shall not do anything hindering environmental protection.

Article 5 (Abiding by Criteria of Environmental Protection)

Enterprises and individuals in an EDP shall strictly abide by criteria of environmental protection like those of air, water, soil, pollutant emission, stench, noise and vibration.

The criteria of environmental protection in EDPs shall be set by the Cabinet.

Article 6 (Formulation of Plans of Environmental Protection and Their Execution)

Plans of environmental protection in EDPs shall be formulated by the EDP management body and executed on approval of the provincial (or municipality directly under the central authority) organ of land and environment protection.

Enterprises shall work out and carry out a yearly plan of environmental protection in the EDPs.

Article 7 (Establishment of Environmental Control System and Enforcement of Environment Authentication System)

Enterprises shall establish an environmental control system of production and business activities in line with the requirements of environmental protection, and may obtain authentication for their environmental control system and products.

Article 8 (Application of Related Laws)

Items that are not specified in these regulations and rules with regard to environmental protection in the EDPs shall be determined pursuant to relevant laws and regulations.

Chapter 2 Preservation and Improvement of Natural Environment

Article 9 (Basic Requirements)

Enterprises and individuals shall preserve the natural environment in the EDPs and create it so that it is conducive to the promotion of people's health and their cultural and emotional life.

Article 10 (Designation of Special Reserves and Nature Reserves)

Special reserves and nature reserves may be designated for the protection of natural environment.

The special reserves and nature reserves shall be designated by the Cabinet.

Article 11 (Adoption of Measures for Environmental Protection)

The EDP management bodies shall conduct regular investigation and registration of changes in animals and plants, topographical features, water quality and climate in the EDPs and take necessary steps.

Article 12 (Land Protection)

An enterprise shall take preventive measures for land protection when carrying on construction and business activities.

The EDP management bodies shall improve rivers, plant trees and build, repair, protect and manage banks in a planned way and take measures to prevent flood damages.

Article 13 (Prevention of Loss of Land and Subsidence of Ground)

The EDP management bodies and enterprises shall prevent the loss of land in the areas under their jurisdiction caused by cutting, filling, storm and others.

Subsidence of ground shall be prevented when building structures and facilities and using underground water.

Article 14 (Laying out Forest and Green Area and Its Protection)

The EDP management bodies and enterprises concerned shall plant trees, flowers and turfs of good species that are conducive to environmental protection along roads, railways and rivers, around buildings, on waste land and in public areas, and tend them in a planned way.

Afforestation shall be conducted intensively in tree-planting and urban landscaping periods.

Article 15 (Preservation of Natural Scenery)

Enterprises and individuals shall not cut down ornamental trees, nor damage or destroy such natural scenic attractions as beauty spots, seaside pine groves, swimming beaches, oddly-shaped rocks, cliffs and mountain valleys and picturesque islands in the EDPs.

Article 16 (Preservation of Scenic Attractions and Natural Monuments)

Enterprises and individuals shall not exploit natural resources in scenic spots, tourist resorts, recreational grounds and their adjacent areas in the EDPs nor do things against environmental protection, and shall preserve natural monuments and remains of historical interest in their original state.

Article 17 (Protection of Animals and Plants)

Enterprises and individuals shall not catch or collect animals and plants without approval in the EDPs nor damage their habitats, causing hindrance to the protection of the ecological system, preservation of biodiversity and growth of animals and plants.

Chapter 3 Environmental Impact Assessment

Article 18 (Institution and Principle)

Environmental impact assessment (EIA) in the EDPs shall be performed by the provincial (or municipality directly under the central authority) land and environmental protection organ (hereinafter called the EIA organ) through the EDP management bodies.

The EIA organ shall ensure scientific accuracy, objectivity and impartiality in EIA according to the state policy and standard of environmental protection.

Article 19 (Obligation)

The enterprises which are going to undertake development and construction projects in the EDPs shall compulsorily receive an EIA.

The EDP management bodies shall not grant an approval for construction to an enterprise that has not received an EIA.

Article 20 (Preparation of an EIA Document)

An EIA document shall be prepared by a relevant enterprise on the basis of an exhaustive survey of the environmental conditions and specific features of development and construction in the region concerned, and the environmental change that may entail therefrom. In this case the enterprise may ask a specialized organ to produce the EIA document.

An EIA document shall specify such items as specific features of development and construction, estimation and assessment of impact on environment by development and construction, and preventive measures for environmental pollution.

Article 21 (Submission of an EIA Document)

An enterprise shall submit its EIA document to an EIA organ for examination through the EDP management body.

Article 22 (Screening Period of an EIA Document)

An EIA organ shall screen an EIA document within 15 days of receipt thereof. In this case, it may ask an enterprise concerned to supply necessary materials and conditions.

The screening period of an EIA document may be extended as necessary.

Article 23 (Notification of Results of Examination of an EIA Document)

An EIA organ shall screen on the EIA document and approve or reject it.

In case it has approved an EIA document, it shall send an approval notification to an enterprise concerned, but a rejection notification with an explanation of the reason when rejecting it.

Article 24 (Submission of a Rejected EIA Document)

The enterprise that has been notified of the rejection of its EIA document shall remedy the mistakes and submit the document again to the EIA organ for rescreening.

Article 25 (Implementation of EIA Decision)

The enterprise that has obtained a notification of approval for an EIA document shall enter into procedures for development and construction and correctly execute the EIA decision.

Article 26 (Cancellation and Re-screening of EIA Decision)

Unless development and construction plan is put into practice within 3 years of approval, the approval of EIA shall be revoked.

In case a change is to be made to the scale, feature, location, procedures of production and technology, buildings, facilities and attached buildings of the relevant project the EIA shall be made again.

Article 27 (Countermeasures for Negative Impact)

Where negative environmental impact arises in development and construction, the EIA organ and EDP management body shall suspend the process and take measures to remove the negative impact.

Article 28 (Confirmation of Execution of EIA Decision)

The EIA organ and EDP management body shall confirm the execution of EIA decision during their inspection of completion of development and construction projects.

The development and construction projects that have failed to execute the EIA decision of approval shall not pass the completion inspection.

Chapter 4 Prevention of Environmental Pollution

Article 29 (Basic Requirements)

Prevention of environmental pollution is a prerequisite to protecting the environment in the EDPs.

The EDP management bodies and enterprises shall regularly measure, analyze and register the emission and density of pollutants, and the intensity of noise and vibration, systematically lower them and take strict measures to prevent environmental pollution.

Article 30 (Installation and Operation of Gas and Dust Collector and Air Filter)

Enterprises shall install gas and dust collectors and air filters in buildings and facilities to prevent emission of gas, dust and stench into the air, and maintain and repair tanks, pipes and other facilities on a planned basis.

Article 31 (Prevention of Noise and Vibration)

Enterprises and individuals shall prevent the occurrence of noise and vibration which are detrimental to environmental protection in the course of running their equipment.

The equipment above the criteria of noise and vibration shall not be used.

Article 32 (Prohibition of Operation of Vehicles)

Operation of vehicles shall be prohibited in cases where:

1. Their gas emission is beyond the limits.
2. They may contaminate the environment as they carry unpacked goods.
3. Petrol drops on the road and the ground because of poor maintenance.
4. They look dirty for lack of cleaning.

Article 33 (Prevention of Air Pollution Caused by Abnormal Weather Conditions)

Where the gas, dust and the like that are emitted under the influence of abnormal weather conditions including rapid change in temperature may contaminate the atmosphere, enterprises and individuals shall control or suspend the use of facilities and operation of vehicles concerned.

Article 34 (Construction of Sewage Works and Settling Basins)

The EDP management bodies and enterprises concerned shall build treatment stations, settling basins and refuse dumps to dispose of waste materials in places with no danger of contaminating water resources such as the sea, river and lake.

Article 35 (Disposal of Rubbish)

Enterprises and individuals shall throw away rubbish in designated places and not burn it in any place.

An enterprise concerned shall promptly dispose of garbage.

Article 36 (Approval for Pollutant Emission)

An enterprise which is going to discharge pollutants shall submit an application to the EDP management body and obtain approval from it.

In case changes have been made in the variety, amount and density of pollutants after obtaining approval, approval for discharging pollutants shall be obtained again.

Article 37 (Installation of Pollution Prevention Facilities)

In case an enterprise is going to operate pollutant emission facilities, it shall install pollution prevention facilities and obtain approval from the EDP management body.

Pollution prevention facilities shall not be transferred to other places or removed without approval.

Article 38 (Operation, Maintenance and Repair of Facilities of Pollutant Emission and Pollution Prevention)

An enterprise shall operate, maintain and repair facilities of pollutant emission and pollution prevention on a regular basis.

The EDP management body may suspend the operation of equipment concerned in case an enterprise emits pollutants beyond the limit.

Article 39 (Introduction of Pollutant Disposal Technology)

An enterprise shall use equipment and technologies that emit a small amount of pollutants and actively introduce advanced technologies of pollutant disposal.

Article 40 (Prohibitions in Aquatic Areas)

Enterprises and individuals shall not dump rubbish, waste and scrap materials, oil and other materials into the sea, river, lake and reservoir.

Article 41 (Water Protection Area)

Aquatic-quality protection areas may be set up in sea bathing resorts, marine cultivation grounds, salt works and harbours in the EDPs in order to place a certain expanse of sea under special protection.

Designation of aquatic-quality protection areas shall be undertaken by the Cabinet.

Enterprises and individuals shall strictly abide by the rules within the water protection areas.

Article 42 (Prevention of Pollution by Ships and Facilities)

The enterprises and individuals which run vessels and facilities in the territorial waters and their adjacent areas of the EDPs shall be exactly furnished with pollution prevention facilities and regularly undergo inspection of relevant organs.

The ships and facilities which discharge waste materials, rubbish, oil and the like, contaminating the territorial waters concerned shall not be operated.

Article 43 (Control over Aquatic Areas)

The enterprises which are in charge of the sea, river, lake and reservoirs in the EDPs shall make a regular inspection of the contamination of the territorial waters concerned and promptly remove oil, rubbish and other pollutants floating on the waters concerned.

Article 44 (Purification of Foul Water)

Enterprises shall set up sewage treatment facilities for the purification of waste water and prevent it from flowing into the sea, river, lake and reservoir.

The level of contamination shall not be reduced by diluting waste water with clean water.

Article 45 (Maintenance of Waterworks, Purification of Drinking Water)

The EDP management bodies and the enterprises concerned shall regularly maintain and repair waterworks and filter and sterilize drinking water according to the set standards, so as to supply drinking water that meets quality standards.

Buildings and facilities shall not be set up nor herbicide, insecticide and other harmful materials be used in the areas surrounding intakes, reservoirs and drainage outlets.

Article 46 (Prevention of Contamination of Underground Water)

Enterprises and individuals shall prevent contamination of underground water by pollutants by properly handling the sources of contaminated underground water and having control over waterway system.

Article 47 (Prevention of Contamination by Chemicals)

In case enterprises and individuals that are going to produce or use chemicals, they shall undergo examination of poisonous substances contained in them and assessment of their impact on environment by the EDP management bodies.

Enterprises and individuals shall strictly observe the rules on storage and use of fertilizers, agricultural chemicals and other chemical materials to prevent poisonous substances from floating in the air, flowing into the sea, river, lake and reservoir, or being deposited in the soil.

Article 48 (Prevention of Pollution by Radioactive Substance)

Enterprises which are going to produce, supply, transport, store, use or scrap radioactive substances in the EPDs shall obtain approval for treating radioactive substances from nuclear safety supervision organs through the EDP management bodies.

Enterprises which have obtained the approval for treating radioactive substances shall equip themselves with adequate facilities for purification and filtering according to prescribed rules and reduce radioactivity to below tolerance limits.

Article 49 (Prohibition of Import of Polluted Goods)

Enterprises and individuals shall not import into the EDPs any polluted foodstuffs, medicines, daily necessities and animal food that may exert a harmful effect on environmental protection and human body.

Article 50 (Treatment of Accidents Caused by Pollution)

Enterprises and individuals shall promptly take measures to prevent damages by pollution and inform the EDP management bodies of it in case pollution has given or may give rise to accident.

The EDP management bodies shall investigate the accident and take relevant steps.

Article 51 (Record of Operation of Prevention Facilities of Environmental Pollutions)

Enterprises shall regularly fill in documents the operation of facilities for preventing environmental pollution and the storage and disposal of scrap and waste materials and keep the documents by the date set by the EDP management bodies.

Chapter 5 Treatment and Disposal of Scrap and Waste Materials

Article 52 (Basic Requirements)

In the EDPs strict order of emission, storage, transport and disposal of scrap and waste materials, including radioactive, poisonous and general ones that are produced during development, construction, production and service activities, shall be

established for the prevention of environmental pollution.

Enterprises shall reduce the emission of scrap and waste materials to the maximum and recycle them.

Article 53 (Application for Refuse Discharge)

An enterprise which is going to discharge scrap and waste materials in an EDP shall prepare an application for approval and submit it to the EDP management body.

The application shall include the kind, amount and analysis data of scrap and waste materials.

Article 54 (Examination of Application for the Discharge of Scrap and Waste Materials for Approval)

The EDP management body shall examine the application for the discharge of scrap and waste materials and approve or reject it within 15 days of its receipt.

The discharge of scrap and waste materials beyond the limit shall not be approved.

Article 55 (Abiding by Discharge Criteria of Scrap and Waste Materials)

An enterprise shall strictly observe the discharge criteria of scrap and waste materials.

In case changes have been made in the kind and amount of scrap and waste materials to be discharged, development, construction, production and service activities shall be suspended, and approval of discharge of scrap and waste materials obtained again.

Article 56 (Registry and Notification of Discharge of Scrap and Waste Materials)

An enterprise shall regularly conduct technical examination of its equipment and production lines and maintain and repair them, and measure, analyze and register the density of gas, dust, waste water and other pollutants.

The results of discharge of scrap and waste materials shall be submitted to the EDP management body once a month.

Article 57 (Storage and Transportation of Scrap and Waste Materials)

An enterprise shall set up storage facilities of scrap and waste materials by taking their physio-chemical and biological features into account and safely keep them by dividing them according to their kind. In this case, the surface of the containers of scrap and waste materials shall be marked with their names and amounts.

An enterprise that is going to transport scrap and waste materials shall submit a document of the kind, amount, analysis data, mode and route of transport and the like to the EDP management body and obtain approval from it, and take necessary measures to prevent environmental pollution during transport, loading and unloading.

Article 58 (Approval for and Period of Disposal of Wastes)

An enterprise that is going to dispose of scrap and waste materials shall submit a relevant application, which bears the kind, data on analysis of properties, amount, an EIA document and a warranty of environmental protection, to the EDP management body.

An enterprise that is going to dispose of scrap and waste materials outside an EDP shall obtain approval of the land and environment protection organ concerned through the EDP management body.

Disposal of scrap and waste materials shall be undertaken in designated places equipped with required facilities and within the period set by the EDP management body.

Article 59 (Prohibition of Import and Use of Wastes and Disposal Facilities and Technology)

In the EDPs scrap and waste materials that harm people's lives and health by emitting radioactive elements or seriously polluting the environment, and the equipment and technologies for their disposal shall not be imported from other countries nor used.

Article 60 (Introduction of Renewable Resources Technology)

An enterprise shall actively introduce the technology for the recycle of by-products and scrap and waste materials from production to prevent environmental pollution and increase the rate of use of resources.

Chapter 6 Supervision and Control

Article 61 (Supervisory and Control Organ)

Supervision and control over environmental protection in an EDP shall be undertaken by the EDP management body and the provincial (or municipality directly under the central authority) land and environmental protection organ.

Article 62 (Establishment of Environmental Observation System)

The EDP management body shall establish a proper environment observation system, investigate environmental conditions on a planned basis and inform enterprises and individuals of necessary information about environment.

Article 63 (Report of Environmental Protection)

The EDP development body shall submit a written report on the work of environmental protection in the EDP to the provincial (municipality directly under the central authority) land and environment protection organ every quarter.

Article 64 (Rehabilitation and Remuneration)

The enterprises and individuals that have polluted or damaged environment or destroyed environment protection facilities in the EDPs shall restore them to the original state or pay due compensation.

Article 65 (Fines)

Fines shall be imposed in the following case:

1. An enterprise has failed to install pollution prevention facilities or opened and conducted business without undergoing relevant inspection.
2. An enterprise has failed to install proper pollutant treatment facilities such as treatment stations, settling basins and refuse dumps or to run them on a regular basis.
3. Pollutants emitted by an enterprise exceed the prescribed level.
4. An enterprise has installed and operated facilities that emit pollutants in special, natural environment and aquatic protection areas without obtaining approval.
5. An enterprise or an individual has produced, sold or imported equipment and goods which are prohibited for environmental protection.
6. An enterprise has failed to operate its pollution prevention facilities according to set rules.
7. An enterprise has explored or developed underground resources or changed the structure of river or lake without approval.
8. An enterprise has developed resources or set up buildings and facilities in and around scenic spots, tourist resorts and recreational areas which are detrimental to environmental protection.
9. An enterprise has conducted construction or business activities without obtaining EIA.
10. An enterprise has used equipment beyond the limits of stench, noise and vibration.
11. An enterprise has violated the rules of production, treatment, use, import and export of toxic, chemical and radioactive materials.
12. An enterprise has violated the rules of discharge, storage, transport and disposal of scrap and waste materials.
13. An enterprise or an individual has cut trees or collected soil, stone and sand without approval.
14. An enterprise or an individual has killed or collected animals and plants without approval.
15. An enterprise or an individual has dumped refuse in a place other than designated one.
16. An enterprise or an individual has hampered the work of supervisory and control organs.

Article 66 (Suspension)

The business of an enterprise shall be suspended in the following case:

1. It has operated facilities without setting up pollution prevention devices.
2. It has removed pollution prevention facilities without approval of the EDP management body.
3. It has discharged pollutants beyond the limit.
4. It has produced, sold, imported or exported equipment and goods that are detrimental to environmental protection.
5. It has failed to accept on-site inspection by the EDP management body or correct mistakes within the set period.
6. Its violation of these regulations is proved serious.

Article 67 (Confiscation)

Property shall be confiscated in the following case:

1. When the level of pollutant emission is seriously exceeded.
2. When incomes have been derived from sale or export of equipment and goods that are prohibited for environmental protection.
3. When the rules of production, treatment, use, import and export of poisonous, chemical and radioactive materials have been violated.
4. When a business whose operation is suspended has been run without approval.
5. When a serious harm has been given to people's lives and health as a result of environmental pollution.
6. When illegal incomes have been made by violation of these regulations.

Article 68 (Complaint and Settlement)

Any complaint concerning environmental protection in the EDPs shall be filed with the EDP management body and provincial (or municipality directly under the central authority) land and environmental protection organ.

The organ shall conduct investigation and settle the complaint within 30 days of its receipt.

Article 69 (Settlement of Disputes)

Any dispute related to environmental protection in the EDPs shall be settled through consultation.

In case of failure in consultation, the dispute shall be settled by mediation, arbitration or legal procedures.

Historical Relics in Kaesong

A number of historical relics are now well preserved in Korea with a 5 000-year-long history and brilliant culture.

Kaesong, situated in the middle of Korea and once the capital of Koryo (918 - 1392), has many historical relics, drawing attention of the tourists.

Magnificent royal mausoleums, old castles, Namdae Gate, Buddhist temples, Songgyungwan, Confucian shrines, Manwoltae, Chomsongdae Observatory, Sonjuk Bridge and many other relics in Kaesong are valuable cultural heritages showing the nearly 500-year-long history of Koryo.

The most attractive is Mausoleum of King Wang Kon (877 - 943), who founded Koryo, the first unified state of the Korean nation.

Composed of a tomb district inside the gate and a park, it is an eight-metre-tall stone grave in Koguryo style. Inside the tomb are a large flagstone table for coffin in the centre, long shelves for keepsakes on both sides, and mural paintings of bamboo, pine tree and four guardians on walls.

There are Mausoleum of King Kyonghyo, the 31st king of Koryo, composed of two tombs for the king and the queen, and other mausoleums of the kings of Koryo, their queens and the royal family.

Old castles, castle gates and temples showcase excellent architecture and brilliant culture of the Korean nation.

Kaesong Fortress consists of royal castle, outer and inner castles, measuring 23km in circumference and having scores of gates.

Namdae Gate was built between 1391 and 1393 as the south gate of Kaesong Fortress. In the gatehouse erected on the rectangular embankment of trimmed granites is the Bell from the Yonbok Temple, one of the three famous bells of Korea. The main part, roof, eaves and other components of the gate showcase the unique architecture of Koryo.

The Bell from the Yonbok Temple is a priceless treasure showing high metal casting workmanship of the Koryo people. Decorations on the bell's surface are elegant and marvelous, and its sound is beautiful and clear reverberating over 40km away.

Taehungsan Fortress also shows high construction technique and talents of the Koryo people as it was built taking advantage of natural and geographical conditions. In the northern extremity it has steep cliffs with cascading Pagyon Falls, one of the three famous waterfalls in Korea, Mt Chonma in the west, Chongryang Peak in the south and Indal Peak and Mt Songgo in the east.

Ryongthong Temple is the most spectacular among the temples in Kaesong. Built in the early 10th century, it was reconstructed to the original state in October Juche 94 (2005) with 26 blocks of buildings covering a total area of 60 000m^2.

Songgyungwan and Sungyang Confucian Shrine are also famous relics in Kaesong.

Songgyungwan, the highest educational institution in the period of Koryo, had six courses including kukjahak, taehak, munhak and ryunnihak. Surrounded by stone fence, it covers an area of 20 000m^2 and has 18 blocks of buildings boasting of the then architecture.

Koryo Museum has on display more than 1 000 relics of historical value that portray the development of history, economy, science and culture in the period of Koryo. They include a map of old Kaesong, the book of Wang (royal) family pedigree, silk, paper, metal types, astronomical documents of sunspots in the period of Koryo, gilt-bronze artefacts, gem-cutting craftworks, metallic currencies, Koryo celadon and gilt-bronze miniature towers.

A number of historical relics in Kaesong were named UNESCO World Heritage sites in the 37th session of UNESCO World Heritage Committee held in Phnom Penh, Cambodia, in June Juche 102 (2013). They include Mausoleum of King Wang Kon, Mausoleum of King Kyonghyo, Seven Tombs Cluster, Myongnung Cluster, Kaesong Fortress, Kaesong Namdae Gate, Manwoltae, Koryo Songgyungwan, Sungyang Confucian Shrine, Kaesong Chomsongdae Observatory, Sonjuk Bridge and Phyochung Monuments.

All historical relics in Kaesong are now in good preservation under the policy of the Workers' Party of Korea to preserve the cultural heritages of the Korean nation. They help tourists easily understand the history of Koryo, the first unified state of Korea.

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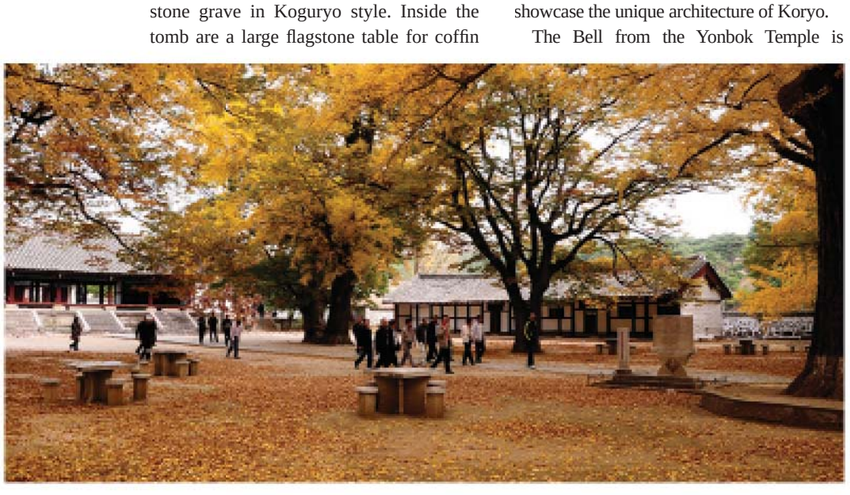

Ragwon-410,
Plant Growth Stimulator

Ragwon-410 developed by the Ragwon Ryonun Technology Company stimulates the growth of grain crops, vegetables, tree saplings and other plants and increases their yield.

It is a fertilizer made of molybdate as a main ingredient and various microelements. Molybdate is known to have a strong condensation capacity.

It stimulates germination and growth of plants. When it is used in seed treatment and sprayed on leaves, the rate of germination of three-year-old seed reaches 98%, and per hectare consumption of seed and fertilizer is reduced by 40% and 70% respectively and the day of growth by 25 – 30 days. And the harvest yield doubles. The stimulator also enhances the resistance of the plant against saltiness, drought, cold and humidity.

It is a light brown syrup with a pH of 5.5 – 7.

Ten litres of its aqueous solution are for one hectare.

Ragwon-410 was registered as a patent of the DPRK in Juche 105 (2016).

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Paekhwasul

An old Korean saying goes, “Liquor brewed with a hundred flowers cures all diseases and brings a long life.”

Tonguibogam, a renowned Korean medical classics, and other documents record Paekhwasul (a hundred flowers liquor) as a tonic for long life in good health.

The liquor is made by distilling a hundred flowers of medicinal herbs by means of unique method, so it preserves natural colours, flavour, tastes and efficacious elements.

It contains a plenty of vitamins C, A, E, B complex (B1, B2, B3, B5, B6 and B12), nucleic acid, crude fat, carbohydrate, Fe, Cu and other essential trace elements.

Its excellent invigorating, strengthening and blood-producing functions are helpful in treating digestive disorders, loss of appetite, chronic enteritis, hypofunction of liver, hypotension, acratia, hypogonadism and gynaecopathy.

Regular drink of 30 – 50 ml during meals is good for health.

The distilling method of Paekhwasul was registered as a national intangible heritage in October Juche 105 (2016).

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No. 13627

Atomic Fluorescence Analyser

The device is used to analyse the content of elements in extremely small quantities in a given material.

It ensures very high accuracy in analysing the contents of microcomponents in foodstuffs and drinking water as well as gold or silver contained in crude and concentrated ores and tailings.

It consists of systems for atomization, excitation, optics, detection, control and data processing.

Technical specifications:

Analysing accuracy: (RSD) ≦1.5%

Detection limit: ppb-class (0.005g/t for gold and silver)

Measuring time: 5 - 15 seconds

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No. 882104