#### KOREA NATIONAL FOOD CLUSTER

# FOODPOLIS

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## **IP RIGHTS** & Food Industry



POLICY TALK MAFRA Promotes ICT Convergence-Integration

SPECIAL REPORT FOODPOLIS to Create a Healthy Future for Asia and the World



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# FOODPOLIS

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### DEAR FRIENDS,

We recently announced a plan for promotion of agri-food and ICT convergence-integration, in order to apply ICT technologies to the production, distribution, and consumption of agricultural products for scientific farming.

This plan comprises three projects (1) Promotion of ICT Convergence - Integration, (2) ICT industry ecosystem development and (3) Basic Infrastructure Expansion, centered on sectors with high-ripple effects and developing technologies.

You can read more about the proposals in this issue of the magazine. This plan has significant meaning in that it seeks to establish a foothold for agri-food industry growth as a growing future business area and ecosystem construction for ICT convergence – integration, as other major industries create new added-values and improve their competitiveness using ICT.

In another exciting development, the World Food Programme (WFP) and Korea National Food Cluster signed a Memorandum of Understanding on September 25<sup>th</sup>, in order to strengthen their mutual cooperation.

The Cover Story focuses on Intellectual Property Rights with specific reference to the food industry. It goes without saying that any Agro-Food company that invests in some form of creative or intellectual output, whether it be in R&D, manufacturing, product formulation, packaging, marketing, media, or sales and distribution needs to be aware of IPR. We take a look at the various IP rights that are available to agro-food companies that can help you grow your business.

As you have noticed, autumn has set in and we thought it appropriate for you to get acquainted with the nation's three most popular kinds of seafood: blue crabs, jumbo shrimp, and gizzard shad.

Hope you enjoy reading this issue.

togothil dee

**LEE Dong Phil** Minister of Agriculture, Food & Rural Affairs

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#### President Park Proposes 'Single Eurasian Market'



President Park Geun-hye declared her 'Eurasia Initiative,' calling for binding Eurasian nations closely together by linking roads and railways to realize what she called the "Silk Road Express" running from South Korea to Europe via North Korea, Russia and China.

She made the appeal during an international conference on Eurasian cooperation, saying the world's biggest continent has the potential to become a huge single market rivaling the European Union if economies in the sprawling region are tied more closely together through freer trade.

"Building a new Eurasia is not just an ideal or dream. It is a realizable goal," Park said during the conference in Seoul. "A new Eurasia will provide us with fresh investments and job opportunities, and will play the role of a continent that will lead the generations to come."

"We should relink disconnected distribution networks in Eurasia and overcome physical barriers hampering exchanges," she said. "We need to realize the Silk Road Express starting from Busan and going through North Korea, Russia, China, Central Asia and Europe."

#### Korea to Grow 3.5% on Average Next Year

36 financial organizations forecast the Korean economy would grow 3.5 percent on average in 2014, said the Korea Center for International Finance and Bloomberg.

80.6 percent of them, or 29 institutions, presented a growth outlook of 3.9 percent, slower than the Korean government's estimate. ING and Germany-based DekaBank put forward the bleakest estimates of 2.6 percent growth. UBS forecast a 3.0 percent growth, Credit Suisse 3.2 percent, and HSBC also estimated a growth in the early three percent range. Fitch Ratings presented a 3.4 percent growth outlook and Korea's National Assembly Budget Office 3.5 percent, while Wells Fargo, DBS Bank and Asian Development Bank (ADB) foresaw the economy would grow below mid-three percent.

Meanwhile, Goldman Sachs, Citibank and the IMF put their outlooks above 3.7 percent, yet still fall 0.2 percentage points short of the government's estimate. Both Standard Chartered Bank and Hyundai Research Institute forecast a 3.8 percent growth, down 0.1 percentage points from that of the government.

Seven organizations including BNP Paribas and Barclays said Korea would grow 3.9 to 4.0 percent next year, equal to or higher than the government's outlook.

#### World Bank Ranks Korea 7<sup>th</sup> in Business Environment

Korea ranked seventh in terms of business environment this year thanks to its efforts to streamline regulations for business operation.

The ranking by the World Bank was one notch higher than the previous year and marked the third consecutive year that Korea has been included in the global top 10 list.

The World Bank analyzed 189 countries' business environments by breaking them down into 10 broad categories involving the so-called business life cycle from start to closure.

Korea ranked second among G20 countries following the United States, and of the member countries of OECD, it came in fourth. The country saw its ranking climb from 26th to 18th in terms of construction permit. In taxation, it's ranking also rose from 30th to 25th. Its rankings in property registration and investor protection, however, remained quite low at 75th and 52nd.

Meanwhile, Singapore maintained its top status in business environment, followed by Hong Kong, New Zealand, the United States and Denmark.



#### Korea to Build Logistics Base in Chengdu

The government is on track to establish a large-scale logistics base in Chengdu, the capital of Sichuan Province by 2017 as the region, whose economy is growing at a rapid pace, is seeing rising needs of safe and fresh agricultural produce. By next year, the aT (Korea Agro-Fisheries & Food Trade Corporation) will also set up its new branch in Chengdu.

In an exclusive interview with the Maeil Business Newspaper, Lee Dong-phil, Minister of Agricultural, Food and Rural Affairs, noted, "we plan to create a large logistics center in Chengdu in our bid to expand footstep into China's western inland areas which are growing at a rapid pace," adding "our bridgehead in the western inland areas will serve as another 'silk road' for import of agricultural produce."

The Ministry will complete its research work for the establishment of the Chengdu center by the first half of next year and begin constructing the center for agricultural produce in 2015 to finish by 2017.



#### Easing Entry Barriers to Industrial Complexes

The government will drastically deregulate the nation's industrial complexes that are rapidly aging and moving backwards.

Previously, occupants in industrial complexes nationwide were confined to manufacturers, but will be expanded to include service providers. The government will also remove restrictions on land use on such industrial complexes, including the creation of a zone for multiple land use. If service companies move into industrial complexes, they will be entitled to acquisition tax exemption and a 50 percent property tax cut for the next five years.

The government also plans to ease control of land use. Currently, industrial complexes are governed by single-purpose land use. This means that manufacturing facility zone should accommodate only plants.



#### Support to Small Stores, Markets

The government is set to provide mom-and-pop stores and traditional markets with big data and a local food system that streamlines distribution of agricultural and fish products.

The Small and Medium Business Administration announced it will improve small merchants' access to information and communication technology. The administration also plans to provide self-employed merchants and mom-and-pop storeowners a database that contains 600 million credit card transactions and other information, such as real estate prices.

Also, it will establish the so-called One Stop System, which searches for goods through smartphones and delivers them directly to 130 traditional markets in cooperation with private companies like SK Telecom and KT.

In these markets, the administration plans to build Internet cafes that are equipped with tablet PCs and other mobile devices.

In addition, it decided to establish a local food system that allows shipping and consumption on the same day through direct transactions between producers and supermarkets and traditional markets.



#### Korea to Share Tourism Know-How

The Ministry of Culture, Sports and Tourism and Korea Tourism Organization will launch Tourism Sharing Program or TSP for 28 nations, which lag behind in tourism starting from early next year at the earliest.

The program is one of the Official Development Assistance (ODA) projects for tourism. It is the first time for Korea to offer ODA in the tourism field since its accession to the OECD's Development Assistance Committee (DAC) in 2010 and the consequent shift to donor-nation status. The ODA project in the tourism sector is unprecedented in the world as the ODA project; so far, fell within the scope of education, health, public administration, agriculture and fishery, industrial energy, environment and climate change response.

Korea's sharing of know-how in tourism holds significance as it testifies the nation stands on its own feet in terms of tourism, befitting its status as a nation with 10 million foreign tourist arrivals.



#### Weekly Working Hours to be Shortened

South Korea's ruling and opposition parties agreed to reduce the maximum weekly working hours from the current 68 to 52 hours from 2016 in a bid to create jobs. This came after working on weekends is added in the 12 hours of overtime.

The current law stipulates that the number of working hours per day should not exceed a total of 40 hours per week. It also limits overtime work to up to 12 hours per week. However, the labor ministry said working on weekends (16 hours on Saturdays and Sundays) is not included in overtime, so a company could make workers work for up to 68 hours a week. The revision will correct the practice by including working on weekends in overtime to cut the maximum working hours to 51, the lawmakers expected. In order to cushion the impact on the industry, the revision will become effective in 2016 for companies with 300 workers or more; 2017 for companies with between 30 and 299 workers; and 2018 for firms with fewer than 30 workers. If management and labor make an agreement, a company can extend overtime by eight hours for six months of the whole year.



#### 4,000 Civil Servants for Part-time Positions to be Hired

The government will employ 4,000 additional civil servants of grade-7 or lower from next year until 2017 for "selective work hour" positions that ensure employment until the retirement age.

The selective positions seek to offer opportunities to women who were forced to quit working due to childcare and are ineligible to work full time to serve as public servants for 20 hours a week or less. The positions provide diverse options in working hours to the women, such as working in the morning, afternoon, or evening, or once every two days. Public servants in the new selective positions will be able to choose when to work, depending on the duty and personal needs, so long as they fulfill the requirement of working four hours per day and 20 hours per week.



#### Seoul, Beijing Agree on Interim 90% Trade Liberalization

Korea and China have reached an accord on liberalizing or lifting import tariffs on 90 percent of all imports during their negotiations on a bilateral free trade agreement (FTA).

At the seventh round of free trade negotiations in Weifang, Shandong Province in China from September 3-5, the two parties agreed to liberalize or remove import tariffs on 90 percent of all products in terms of the number of products and 85 percent of all imports in terms of their value.

As they have tentatively agreed on the liberalization rate of 90 percent in the products sector, 1,200 products or 10 percent of the total 12,000 products subject to negotiations will fall into the 'super-sensitive' category immune from liberalization.



#### Korea, Malaysia Strike \$4.7 billion Currency Swap Deal

South Korea and Malaysia signed a currency swap worth \$4.7 billion, or around five trillion won. The move is intended to brace for the time when the US drastically unwinds its quantitative easing through interest rate hike.

The agreement will allow the two countries to swap five trillion won for 15 billion ringgits, which will be used to settle payments linked to their bilateral trade. Korea plans to use ringgits for oil imports from Malaysia and stock up dollars in preparation for the US's tapering of quantitative easing and the subsequent foreign currency outflows.

Under the deal, Malaysia will also use the Korean currency won for trades that have been commonly settled in US dollars in preparation for the US's end of quantitative easing.

Korea and Malaysia signed a \$4.7 billion won-ringgit currency swap deal, according to the Ministry of Strategy and



Finance and Bank of Korea (BOK). The government and BOK plan to expand its efforts to utilize currency swap deals with other nations.

The government is eyeing the deal with the Asian nations in its bid to counter the US's slowing-down of quantitative easing.

#### Korea, Vietnam to Enhance Bilateral Economic Cooperation

Korean President Park Geun-hye and Vietnamese President Truong Tan Sang held a summit and agreed to expedite negotiations on a comprehensive free trade agreement (FTA), with a goal to sign the agreement next year. The two presidents also agreed to work together to more than triple the current bilateral trade of \$20 billion to \$70 billion by 2020.

They adopted and announced a joint statement covering cooperation on the political, security, economic, and trade fronts.

The joint statement spells the two leaders' commitment to expanding the bilateral strategic cooperative partnership established in 2009, as well as strengthening cooperation in tackling global issues confronting the international community.



#### Nongshim's China Sales Pass \$1 Billion

The 15-year-old Chinese subsidiary of Nongshim, Korea's largest instant noodle maker, saw its total accumulated sales surpass \$1 billion in October. That translates to at least 1.8 billion packs of Shin Ramen sold, or more than enough to serve the entire Chinese population of 1.3 billion.

The noodle maker said the key to its success in China has been differentiation rather than localization, the strategy of most companies. While sticking to its original products, it reflected Chinese culture and sentiment in its marketing.

It reported sales growth of more than 130 percent in the third quarter this year compared with the previous quarter.

The leading processed food maker has increased its sales target this year to \$165 million. Sales were \$120 million last year. Considering recent growth in the ramen market of about 0.8 percent annually, Nongshim's performance is exceptional. The company reported year-on-year sales growth of 30 percent last year. This year, it expects sales to rise 38 percent with target revenue of \$165 million. Nongshim's flagship products in China include Shin Ramen, Shin Ramen Black, Kimchi Ramen, An Sung Tang Myun, Neoguri and Doongji Cold Noodles.



#### Mister Pizza Expands its Manoffin Coffee Franchise

MPK Group, which runs the pizza franchise Mister Pizza, has announced that it is expanding its coffee business. MPK Group said it will open up its first European bakery cafe Manoffin next to the Hamilton Hotel in Itaewon.

MPK currently operates 38 small Manoffin Express shops across the country. But the new bakery cafe will be different from its small coffee stalls and is designed to compete with major coffee franchises, such as Starbucks and Caffe Bene, by



going for a high-end image. The price its Americano coffee will cost 4,100 won.

In addition to coffee, the cafe will offer muffins, cupcakes and other goods, all supposedly baked in a traditional British way. MPK plans to open up two to three more bakery shops by the end of the year.

#### Maeil Dairy becomes Member of Social Responsibility Index

Maeil Dairy, the nation's third-largest dairy manufacturer, said yesterday that the company has been incorporated into the Socially Responsible Investment Index (SRI) of the Korea Exchange (KRX).

Since 2009, the Korea Exchange has presented the index once a year. It includes companies with high environmental, social and governance (ESG) ratings and was launched to raise awareness of corporate social responsibility and sustainable business management among domestic companies, and to provide a benchmark for social responsible investment.



#### **Lotte Mart Details Indonesia Plans**

Local discount chain Lotte Mart held a convention with Indonesian partners at the Pullman Hotel in Jakarta, attended by 1,000 officials including Irman Gusman, speaker of the Indonesian legislature; Kim Young-sun, Korean ambassador to Indonesia; CEOs of major local banks; and 500 local partners.

Under the theme "Together We Go Far," Lotte Mart presented shared growth plans with partner companies, its vision for businesses in Indonesia, and introduced the company and its business at home and abroad. Lotte Mart plans to release the so-called "Tongkeun 30 items" at unprecedented prices through a partnership with companies in Indonesia. The items include necessities such as toilet paper, diapers, instant coffee and sugar, and the retailer plans to expand the number of items to 70 by next year.

In addition, the company will introduce 5,100 items under seven product brands by the end of this year, an increase of 20 percent from last year's 4,100 items under four brands. Lotte Mart also said it will expand Korea's fair trade culture to its Indonesian partner companies by expanding its delivery payment dates for suppliers.



#### CJ Group Road Map for Agriculture

Food and entertainment conglomerate CJ Group said it will expand its purchase of agricultural products to 1.7 trillion won (\$1.57 billion) by 2015, which is expected to create 53,000 jobs for farmers.

In addition, CJ plans to embark on providing a full range of support in conjunction with its business partners, such as development of Korean food menus, opening new distribution channels like home shopping and using broadcasting to inform consumers about agricultural products.



CJ announced the plan at the Shared Growth of Agricultural Industry and Enterprise event at the aT Center in Yangjae-dong, southern Seoul.

In order to address the difficulties of farmers, CJ CheilJedang and CJ Freshway will support ongoing agricultural research and development, and secure stable sales through contract farming, bulk purchasing and private contracts.

CJ O Shopping is set to transform the distribution structure through direct transactions with farmers and consumers. CJ E&M plans to promote Korean agricultural products through broadcasting to boost the globalization of Korean food.

#### **Private-Brand Milk Prices Hiked**

Prices of store-brand milk products at large discount chains have been raised 7 percent to 14 percent following hikes in the price of raw milk by dairies. According to the retail industry, the three large discount chains, E-Mart, Lotte Mart and Homeplus, have all carried out price hikes on milk. Most store brands, also known as private brands or PB milk products, remain much cheaper than products processed by food manufacturers.

Meanwhile, dairy companies said consultations to raise the B2B prices of milk, paid by coffee shops and bakeries, are under way, which could affect the prices of coffee and bread.

The nation's largest dairy producer, Seoul Milk, said no B2B price hikes will take place this year.



#### Foreign Firms Show Interest in Kaesong Complex

Foreign companies have shown steady interest in investing in an inter-Korean factory park in North Korea, which may contribute to the internationalization of the business zone, a government official was quoted as saying by Yonhap News.

Transforming the Kaesong Industrial Complex into a globally competitive one is part of the agreement reached between Seoul and Pyongyang to resume its operations on Sept. 16<sup>th</sup>. All work was halted in early April amid heightened tensions on the Korean Peninsula.

"Companies from such countries as China, Russia, Australia and Germany have made inquiries about possible investments," said the unification ministry source, who wanted to remain anonymous. "While companies did not want their interests to be made public at present, executives were making detailed inquiries."



#### Fish Imports Keep Falling Especially from Japan

Imports of Japanese fish have dropped almost by half as consumers worry about radiation contamination from the Fukushima Daiichi nuclear plant. According to statistics released by the Korea Customs Service, imports of Japanese fish for this year through August declined 43.7 percent compared to five years ago.

China, Russia and Vietnam maintained their top three rankings for imports of fish. While imports from the top five countries account for 70 percent of all fish imports, Japan was ousted from its fourth slot last year for the first time since 2009. The United States is now the fourth-largest importer.



Along with the decline in Japanese fish imports, the No. 1 imported fish, Russian myungtae, or pollack, also fell this year from a year earlier. Among the top 10 fish items in terms of imports, myungtae, frozen surimi (a fish pasted) and shrimp accounted for 40 percent of all fish imports.

#### Seoul City Eyes World's No. 5 Tourist Attraction by 2018

Seoul City said it plans to diversify its tourism programs and boost infrastructure investment as part of its efforts to become the world's fifth most-visited city by 2018. Under a fiveyear plan, the South Korean capital city aims to attract 20 million visitors a year by 2018. In 2012, more than 10 million foreigners visited Seoul, making it the world's 11th most-visited city, according to government data.



#### Kimchi, Kimjang Likely to be listed as UNESCO Heritage

Korea is poised to have another UNESCO heritage, as Kimchi and Kimjang have been recommended to be "inscribed" as UNESCO's intangible heritage. Kimchi, a traditional food made of cabbage, is prepared in the process of fermentation and preservation called Kimjang.

The Cultural Heritage Administration said an auxiliary examination body under the UNESCO Intergovernmental Committee for the Safeguarding of Intangible Cultural Heritage has reached such decision.

The UNESCO categorizes heritages into three types - the World Heritage, Intangible Cultural Heritage and Memory of the World. A heritage is listed as the Intangible Cultural Heritage when it meets the criteria of cultural diversity, humanity's creativity and adequate safeguards for preservation.



#### 'Hansik' Chosen to Draw Foreign Tourists

The Ministry of Culture, Sports and Tourism announced an ambitious plan to promote the country's food culture as it looks to help increase the number of tourists in regions other than the Seoul metropolitan area.

The campaign, which will be carried out by the Korea Tourism Organization, will continue through Dec. 15 and focus on highlighting regional culinary specialties.

The measure comes after Culture Minister Yoo Jin-ryong talked about shifting the focus of government support from the entertainment industry to food or "hansik" and architecture in the efforts to extend "hallyu" or the Korean culture boom.



#### Festival Commemorates Korean Food Day

The Korean food industry kicked off a mammoth festival in downtown Seoul on October 23<sup>rd</sup> to promote its campaign to establish a day that celebrates Korean food and sheds new light on local cuisines.

The highlight of the festival, the first of its kind, was an event to make bibimbap, an iconic Korean dish full of sticky rice that's topped with several vegetables, meat or seafood, and a fried egg, for over 12,000 people, organizers said.

Korean food masters and students majoring in culinary science at various universities sweated to mix the rice with toppings contained in a huge wooden bowl.

Other programs included a cooking contest, exhibition of traditional Korean food ingredients and tasting of various types of Korean staples at Gwanghwamun Square, the venue of the festival.

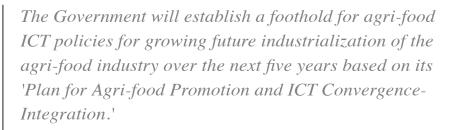
After the festival, the organizers launched a campaign to gather signatures from one million people to raise the need to formally designate October 10th as Korean Food Day.



# MAFRA PROMOTES ICT CONVERGENCE-INTEGRATION







The Ministry of Agriculture, Food, and Rural Affairs under Minister Lee Dong-phil has announced that a 'Plan for Promotion of Agri-food and ICT Convergence - Integration' has been established in order to apply ICT technologies to the production, distribution, and consumption of agricultural products for scientific farming.

This plan has significant meaning in that it seeks to establish a foothold for agri-food industry growth as a growing future business area and ecosystem construction for ICT convergence – integration, as other major industries create new added-values and improve their competitiveness using ICT.

This plan comprises three projects (1) Promotion of ICT Convergence - Integration, (2) ICT industry ecosystem development and (3) Basic Infrastructure Expansion, centered on sectors with high-ripple effects and developing technologies. 1) Successful models will be promoted centered on the facility horticulture, fruit growing and livestock industry that can be easily technically developed and industrialized and a wide range of models such as direct agricultural product e-commerce transactions and provision of agriculture and livestock product history information will be developed and distributed for distribution and consumption.

- Facility horticulture: Supplying a 'Smart Greenhouse' system that supports monitoring and control of plant growing environments via smart phone or PC by providing high-tech sensing, monitoring, and controlling equipment to farms
- Fruit growing: Reducing production costs and producing quality fruit by supporting ICT convergence integration equipment such as high-



tech disease and insect pest sensing and monitoring

- Livestock facilities: Feeding and management with environmental control, risk management, and automatic feeding system using temperature and humidity sensors, fire sensors, internet CCTV, and more.
- Distribution, consumption, etc.:
  Connecting to rural tourism by improving distribution and storage efficiency for direct local food transactions and school lunches and comprehensively managing local resources

2) Focusing on establishing an industrial ecosystem for a wide range of ICT technologies to be applied to the agricultural business. The government provides starting points for initial market development by distributing outstanding models.

 An ICT Convergence - Integration Support Center will be established and operated to develop a technical cooperation network between IT enterprises and demanding organizations.

 The initial domestic market will be promoted and a required system built for further penetration into overseas markets by establishing international standards for hardware and software such as controllers, sensors, administrative management programs, etc.

3) Establishing an on-site support system for farm education

- Reinforcing education and promotion of successful cases by establishing a practical ICT training farm
- Systematically promoting agri-food and ICT convergence - integration by enacting the 'Act on Promotion of Informatization of Agricultural and Rural Villages
- Construct an on-site support system in cooperation with agricultural technology centers all over the country

In order to continuously develop and practically apply agri-food and ICT convergence - integration, MAFRA will make efforts to establish systemic virtuous circulation from the R&D stage to the model development and promotion stage.

MAFRA will invest 224.9 billion won on the development and promotion of agri-food and ICT convergence integration models by 2017, using existing R&D and informatization budget. Budgets required for application to agriculture and rural sites will be implemented in conjunction with the facility modernization project (horticulture, livestock, etc.).

"We expect this plan to facilitate an increase in productivity, product quality, and rural household income and establish a foothold for job creation and overseas market penetration by developing an agri-food and ICT industry ecosystem," said MAFRA policy planning officer Mr. Heo Tae-woong.

#### **Promotion Plan**

It is hoped that by 2017 the plan will cover 7,000 farms, 100 enterprises, and 50 rural villages. The following are some details:



1) Distribution and Promotion of Successful ICT Convergence - Integration Model

Facility horticulture and fruit: Focus on strategic export items whose productivity and quality need improvement, in preparation for FTAs and the like.

- Distribute successful models to 5,000 farms (2,500ha), centered on specialized export complexes and production-area organizations, by 2017
- Distribute successful models to 1500 farms (2,250ha) for major fruit such as apples, mandarin oranges, grapes, etc. <u>Livestock:</u> Focus on the hog raising business for which ICT applicability is high and relevant model verification is implemented, then expand to the dairy business (500 farms between 2014 and 2017)
- Associate with the shed facility modernization project and implement a demonstration project for promotion from 2014

Distribution, etc.: Develop a wide range of models such as agri-food sales support, rural tourism, and the like, and promote these after verifying their onsite applicability, economic feasibility, etc.

Model development: Implementation of an R&D project for high-demand on-site new source and application technologies and expansion of model development for verification of applicability and economic feasibility

- A wide range of model development such as agri-food sales support (POS-Mall, Mobile Virtual Store, etc.), rural tourism, etc. (5 models in 2013 10 models after 2014)
- Continuous development of technologies optimized for cultivation and specification management by establishing a research team by item(Rural Development Administration)

#### 2) ICT Industry Ecosystem Development

Development and operation of an industrialacademic cooperation network for policy application, ICT-specialized manpower development, close technical cooperation



between agricultural and IT enterprises, and more

Installation of a (tentatively named)
 Agri-food and ICT Convergence Integration Supporting Center' as an exclusive organization (using a group from the Korean Agency of Education, Promotion, and Information Service in Food, Agriculture, Forestry, and Fisheries)

Standardization of hardware and software such as controllers, sensors, and administrative management programs and construction of an integrated information application system

 Construct an integrated information application system for the accumulation and use of agricultural and ICT convergence - integration data including production information

Review agri-food fund support for ICT enterprises with deficient capital to promote the on-site application models of private companies

#### 3) Basic Infrastructure Expansion

Develop practical ICT training farms where farmers can learn technologies and receive technical education on site, and strengthen promotion activities for successful cases Establish a legal basis for efficient application and promotion of a high-tech production and distribution information system with a technical combination of ICT convergence - integration

Reinforce evaluation, verification, feedback, and on-site support of ICT convergence - integration using expert groups to improve effectiveness

#### Intelligent Shed Management System

#### Major Services

- Environment management: environment and risk management such as temperature, humidity, and CO2 monitoring via web-cam
- Feed management: feed management with fodder bean controller, individual feeder, and water supplier control
- Administrative management: establishment and analysis of administrative plans through feed management, production planning, history management, etc.

Source: Ministry of Agriculture, Food & Rural Affairs (www.mafra.go.kr).

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# INDUSTRY

Any Agro-Food company that invests in some form of creative or intellectual output, whether it be in R&D, manufacturing, product formulation, packaging, marketing, media, or sales and distribution needs to be aware of Intellectual Property Rights.

Intellectual property pertains to any original creation of the human intellect such as artistic, literary, technical, or scientific creation. Intellectual property rights (IPR) refer to the legal rights given to the inventor or creator to protect his/her invention or creation for a certain period of time.

It is very well settled that IP play a vital role in the modern economy. It has also been conclusively established that the intellectual labor associated with the innovation should be given due importance so that public good emanates from it. There has been a quantum jump in R&D costs with an associated jump in investments required for putting a new technology in the market place. The stakes of the developers of technology have become very high, and hence, the need to protect the knowledge from unlawful use has become expedient, at least for a period, that would ensure recovery of the R&D and other associated costs and adequate profits for continuous investments in R&D.

IPR is a strong tool, to protect investments, time, money, effort invested by the inventor/creator of an IP, since it grants the inventor/creator an exclusive right for a certain period of time for use of his invention/creation. Thus IPR, in this way aids the economic development of a country by promoting healthy competition and encouraging industrial development and economic growth.

As noted by the World Trade Organization (WTO), intellectual property rights are customarily divided into two main areas:

1. Copyright and rights related to copyright

The rights of authors of literary and artistic works (such as books and other writings, musical compositions, paintings, sculpture, computer programs and films) are protected by copyright, for a minimum period of 50 years after the death of the author.

Also protected through copyright and related (sometimes referred to as "neighboring") rights are the rights of performers (e.g. actors, singers and musicians), producers of phonograms (sound recordings) and broadcasting organizations. The main social purpose of protection of copyright and related rights is to encourage and reward creative work.





#### 2. Industrial property

Industrial property can usefully be divided into two main areas:

One area can be characterized as the protection of distinctive signs, in particular trademarks and geographical indications.

The protection of such distinctive signs aims to stimulate and ensure fair competition and to protect consumers, by enabling them to make informed choices between various goods and services. The protection may last indefinitely, provided the sign in question continues to be distinctive.

Other types of industrial property are protected primarily to stimulate innovation, design and the creation of technology. In this category fall inventions (protected by patents), industrial designs and trade secrets.

The social purpose is to provide protection for the results of investment in the development of new technology, thus giving the incentive and means to finance research and development activities.

A functioning intellectual property regime should also facilitate the transfer

of technology in the form of foreign direct investment, joint ventures and licensing.

Each form of IPRs has different requirements and grants different rights. Before the whole range of possibilities offered by modern technologies in the agricultural sector was available, inventions based on living organisms were considered natural phenomena, i.e. discoveries, and were thus not patentable. However, developments in modern biotechnology require substantial levels of investment in research and development, and its processes and products can be easily copied. The IPRs system provides a way of ensuring the financial revenues required to make the technology profitable.

In what follows we take a look at the various IP rights that are available to agrofood companies.

#### Patents

In a legal terminology a patent is an exclusive right granted for an invention, which can be a product or a process that provides, in general, a new way of doing something, or offers a new technical solution to a problem. A patent provides protection for the invention to the owner of the patent. The owner can be an individual, or a group of people or organization. In order to be patentable, the invention must fulfill certain conditions as specified in the Patent Act.

Patent protection means that the invention cannot be commercially made, used, distributed or sold without the patent owner's consent. These patent rights are usually enforced in a court, which, in most systems, holds the authority to stop patent infringement.

A patent owner has the right to decide who may – or may not – use the patented invention for the period in which the invention is protected. Under TRIPS agreement of WTO, the protection is granted for a limited period, generally 20 years. The patent owner may give permission to, or license other parties to use the invention on mutually agreed terms. The owner may also sell the right to the invention to someone else, who will then become the new owner of the patent. Conversely, a court can also declare a



patent invalid upon a successful challenge by a third party.

Once a patent expires, the protection ends, and an invention enters the public domain. The owner then no longer holds exclusive rights to the invention. It becomes available to commercial exploitation by others.

All patent owners are under obligation to publicly disclose information on their invention in order to enrich the total body of technical knowledge in the world. Such an ever-increasing body of public knowledge promotes further creativity and innovation. In this way, patents provide not only protection for the owner but valuable information and inspiration for future generations of researchers and inventors.

The agro-food industry is currently experiencing rapid technical advances, which are set to continue with the growing interest in, for example, functional foods; and, in view of the increasing crossover that exists with pharmaceutical chemistry and biotechnology, patents are now highly relevant. A patent may provide protection for a novel microorganism, plant or animal that has been genetically modified to produce a particular food ingredient or additive.

It may also protect a new synthetic process, a molecule produced by that process, or the use of that molecule to produce a particular effect, for example, a flavor, aroma, texture or stability. It is also possible to patent a new and improved composition, or a method or apparatus for making or testing a composition. With shelf life, nutrition and health becoming increasingly important to today's consumer, machines, techniques and processes for testing or monitoring food quality may all provide patentable subject matter.

Robots or other machines used for performing tasks, such as packaging of food products, and different types of packaging are also candidates for patent protection.

A patent is commonly described as a "monopoly right", meaning that it gives its owner the right to prevent everyone, other than people authorized by the owner, to use, produce, sell, import or keep anything that falls under the protection of the patent.

A patent is an item of personal property and, like any other property; it can

be bought, sold or licensed. Patents have a lifespan of 20 years from the filing date of the application (subject to the payment of annual fees), and have a territorial effect.

To simplify the patenting in many countries WIPO administers Patent Cooperation Treaty. The WIPOadministered Patent Cooperation Treaty (PCT) provides for the filing of a single international patent application, which has the same effect as national applications filed in the designated countries. An applicant seeking protection may file one application and request protection in as many signatory states as needed.

Any resident or national of a Contracting State of the PCT may file an international application under the PCT. A single international patent application has the same effect as national applications filed in each designated Contracting State of the PCT. However, under the PCT system, in order to obtain patent protection in the designated States, a patent shall be granted by each designated State to the claimed invention contained in the international application.

Procedural and substantive





requirements for the grant of patents as well as the amount of fees required are different from one country/region to the other. It is therefore recommended to consult any practicing technolegal professional who is specialized in intellectual property or the intellectual property offices of those countries in which one is are interested to get protection.

Searchable Internet patent databases have significantly facilitated the access to patent information. However, given the complexity of patent documents and the technical and legal skills required, it is advisable to contact a professional patent attorney. Please note Patent is a technolegal exercise and not just legal drafting.



#### Trademarks

A trademark is basically a sign that is used to distinguish the goods or services offered by one undertaking from those offered by another. A trademark is a word, a logo, a number, a letter, a slogan, a sound, a color, or sometimes even a smell, which identifies the source of goods and/or services with which the trademark is used.

Its purpose is to protect the name of the product rather than the invention or idea behind the product. Trademarks can be owned by individuals or companies and should be registered with a governmental agency, which is usually referred to as the Trademarks Office. Generally speaking, trademarks should be distinctive and should neither be generic nor merely descriptive of the goods or services they represent. For example, the word "vegetable" cannot be registered as a trademark of a supermarket, since it is certainly descriptive of items, which a supermarket sells. In addition, it cannot be registered as a trademark for carrots, since it is a generic term for carrots. On the other hand, the word "vegetable" might well serve as a trademark for bicycles since it has little or nothing to do with bicycles.

Trademarks should preferably not be geographical or primarily a surname. Thus, "Paris" cannot serve as a trademark for perfume. In many countries, trademarks, which comprise mere letters and/or numbers or are surnames, are considered to be indistinct.

In some instances, trademark registration can still be obtained for trademarks that are merely (i) descriptive, (ii) a surname, (iii) geographic or (iv) indistinct.

Trademarks, also known as brand names, are part of everyday life. Trademarks usually ensure a consistent level of quality - be it good or bad. A mark helps you to use your experience either to return to a desirable product or service or to avoid an undesirable one.

The symbol should be used to represent a registered trademark, whereas the symbol "TM" should be used where the trademark is not registered.

Trademarks can be important marketing tools for your business and, unlike patents; a trademark can last forever. They also have territorial rights. As with patents, international treaties and laws are in place to make it easier for a trademark owner to register a trademark in several countries simultaneously. By filing a trademark application via the Madrid System, an international trademark can be obtained in those member states.

A trademark is registered only in connection with specific categories of goods and services. This has the interesting consequence that it can enable different companies to use very similar or identical trade names or marks, provided that the respective goods or services of each company are sufficiently different to avoid confusion. But, a valid trademark gives its owner the legal right to prevent others from using a similar mark in connection with the same or similar goods. In other words, it allows the trademark owner to prevent competitors from using marks that imitate or could be confused with an existing trademark.

#### **Geographical Indications**

The term "geographical indication" has been chosen by WIPO to describe the subject matter of a new treaty for the international protection of names and symbols, which indicate a certain geographical origin of a given product.

A geographical indication tells consumers that a product is produced in a certain place and has certain characteristics that are due to that place of production. All producers who make their products in the place designated by a geographical indication and whose products share typical qualities may use it.

It embraces all existing means of protection of such names and symbols, regardless of whether they indicate the qualities of a given product due to its geographical origin (such as appellations of origin), or they merely indicate the place of origin of a product.

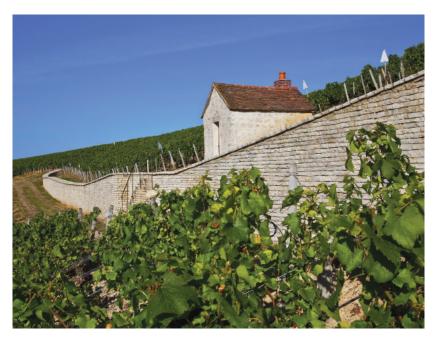
This definition also covers symbols, because geographical indications are not only constituted by names, such as the name of a town, a region or a country, but may also consist of symbols. Such symbols may be capable of indicating the origin of goods without literally naming its place of origin.

The commercial significance of this relatively new term can be assessed by the fact that Geographical Indications are integral part of national, regional and international trade negotiations.

When considering geographical indications as a special kind of distinctive sign used in commerce and thus as a particular category of intellectual property, it is important to distinguish them from trademarks: a geographical indication identifies a geographical area in which one or several enterprises are located which

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produce the kind of product for which the geographical indication is used. Thus, there is no "owner" of a geographical indication in the sense that one person or enterprise can exclude other persons or enterprises from the use of a geographical indication, but each and every enterprise which is located in the area to which the geographical indication refers to has the right to use the said indication for the products originating in the said area, but possibly subject to compliance with certain quality requirements as prescribed.

It might well be that a geographical name is regarded in one country as a geographical indication and is protected accordingly, whereas it is considered to be a generic or semi-generic term in another country. Notorious examples for such diverging treatment of geographical names are the French names "Champagne" and "Chablis" which, in France, are only allowed to be used for products originating from a certain geographical area and produced according to certain quality standards, whereas, in the United States of America for example, they are regarded as being semi-generic names, and therefore may be also used for wines not originating from the particular area of production in France. Geographical indications are protected in accordance with national laws and under a wide range of concepts, such as laws against unfair competition, consumer protection laws, laws for the protection of certification marks or special laws for the protection of geographical indications or appellations of origin.

A number of treaties administered by the WIPO provide for the protection of geographical indications, most notably being the Paris Convention for the Protection of Industrial Property of 1883, and the Lisbon Agreement for the Protection of Appellations of Origin and Their International Registration. In addition, Articles 22 to 24 of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) deal with the international protection of geographical indications within the framework of the WTO.

#### **Trade Secrets**

Trade secrets encompass manufacturing, industrial secrets and/or commercial secrets. The unauthorized use of such information by persons other than the holder is regarded as an unfair practice and a violation of the trade secret. Depending on the legal system, the protection of trade secrets forms part of the general concept of protection against unfair competition or is based on specific provisions or case law on the protection of confidential information.

The subject matter of trade secrets is usually defined in general and broad terms and includes recipes, formulations, sales methods, distribution methods, consumer profiles, advertising strategies, lists of suppliers and clients, and manufacturing processes. While a final determination of what information constitutes a trade secret will depend on the circumstances of each individual case, clearly unfair practices in respect of secret information include industrial or commercial espionage, breach of contract and breach of confidence.

Contrary to patents, trade secrets are protected without registration. For these reasons, the protection of trade secrets may appear to be particularly attractive



for food industry. There are, however, some conditions for the information to be considered a trade secret. WTO agreement on TRIPS also recognizes the concept of trade secret. Compliance with such conditions may turn out to be more difficult and costly than it would appear at first glance. While these conditions vary from country to country, some general standards exist which are referred to in Art. 39 of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement):

The information must be secret (i.e. it is not generally known among, or readily accessible to, circles that normally deal with the kind of information in question).

It must have commercial value because it is a secret.

It must have been subject to reasonable steps by the rightful holder of the information to keep it secret (e.g., through confidentiality agreements).

Trade secrets are widely used by food industry including multinationals. In fact, many food companies rely almost exclusively on trade secrets for the protection of their IP (although in many cases they may not even be aware that trade secrets are legally protected). It is important, therefore, to make sure that food enterprises take all necessary measures to protect their trade secrets effectively.

Trade secret protection does not require compliance with formalities such as disclosure of the information to a Government authority.

There are, however, some concrete disadvantages of protecting confidential business information as a trade secret, especially when the information meets the criteria for patentability:

If the secret is embodied in an innovative product, others may be able to inspect it, dissect and analyze it and discover the secret and be thereafter entitled to use it. Trade secret protection of an invention in fact does not provide the exclusive right to exclude third parties from making commercial use of it. Only patents and utility models can provide this type of protection.

The level of protection granted to trade secrets varies significantly from country



to country, but is generally considered weak, particularly when compared with the protection granted by a patent.

#### **Registered Designs**

Registered designs protect the physical appearance of an article (or part of an article), such as its shape, configuration, pattern or ornamentation, including features of lines, contours, colors, texture or material. To register, a design must be "new", which means it must not be the same as any known design; and have "individual character", which essentially means that it gives a different overall impression to any previously known design.

It is possible to register a design in connection with almost any "article", whether it is mass-produced in industry, or a unique handicraft object. In the agro-food industry, a registered design may be used to cover a new type of packaging or the features of an electrical apparatus.

Since a registered design can cover the whole or part of an object, a complicated item may be protected by many different designs. Interestingly, a registered design may even protect the appearance of a food item, for example, the shape of a teabag.

Registered designs provide similar rights to those of patents, in the sense that they can be enforced to stop unauthorized persons from using, making, selling or importing a product having an infringing design, for a maximum term of 25 years. As with other forms of IP rights, it is possible to obtain registered design rights internationally.





#### Copyright

Copyright relates to the expression of an idea, rather than to the idea itself. Thus, it applies to original literary, artistic or graphical works, including software programs. A copyrighted work cannot be copied, without the consent of the owner, for the term of the copyright, which, in most cases, is the life of the author (or creator) plus 70 years. The best way to indicate that a work is protected under copyright law is to display the symbol along with the name of the copyright owner and the year of the work.

Copyright is particularly relevant to the design, imagery and labeling of packaging, and also applies to two-dimensional design drawings, such as plans, for example, for new packaging or machinery.

#### Conclusion

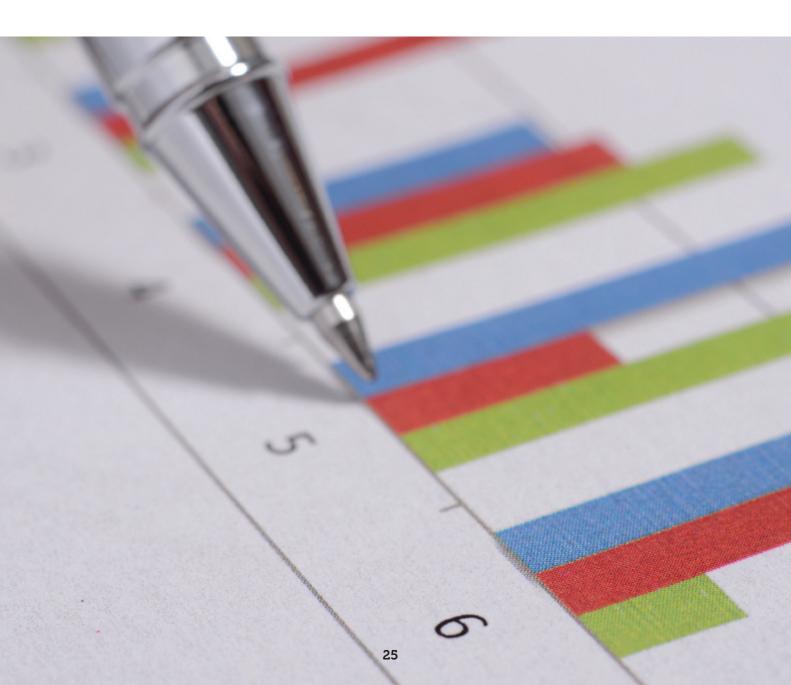
In the global marketplace, agro-food companies need to look to protect their IP abroad, as well as in their country of origin. Most IP systems work internationally and so it is generally straightforward to secure protection in key foreign markets. IP is becoming rapidly more important in agrofood industry and you ignore it at your peril.

It is generally believed that in the field of agriculture, intellectual property regime will spur activity among the scientists and farmers to facilitate new knowledge that will lead to innovations. Such innovations will save countries from relying on "climate fed" agriculture and pave way to intelligently driven agricultural practices. Releasing agro-based population will expand other areas of the economy such as the tourism industry, the retail industry and other technologically oriented industries. This can also make countries to effectively join the value added biotech industry and save their populations from malnutrition and hunger. Moreover it will also attract more investment and exchange of goods from other countries.

Ago-food companies can benefit from the wealth of technological and commercial information available in patent and trademark databases to learn about recent technological breakthroughs, identify future partners, and find out about the innovative activities of competitors.

Finally, managing IP effectively and using it to devise business strategies is an increasingly critical task for entrepreneurs worldwide.

# TAX REVISION BILL, BUDGET AND FISCAL MANAGEMENT PLAN



The 2013 tax revision bill and 2014 budget proposal proposed by the Park Geun-hye administration promotes job creation and the economic recovery while minimizing the burden on the public. The 2013-2017 National Fiscal Management Plan has also been announced.



The tax revision bill, which incorporates many changes, has been finalized. The following are changes to the original tax revision bill for this year:

#### Earned Income Tax Credit to Be Increased

Those earning 55 million won or less a year will receive tax reduction of up to 660,000 won, those earning 70 million won or less a year will receive up to 630,000 won of tax reduction, and those earning more than 70 million won will have 500,000 tax-reduced at most.

Current tax reduction rates will be maintained, as the 55 percent reduction rate will be applied to income taxes amounting to 500,000 won or less, and 30 percent to more than 500,000 won.

The revision is expected to ease the tax burden on the middle class, which increases due to the adoption of the new tax deduction method that applies tax deduction to the amount taxed, instead of income.

#### Charitable Donation Tax Credit to Be Increased

Charitable donations of more than 30 million won will be given 30 percent tax reduction for the amount exceeding 30 million won. The tax reduction rate of 15 percent will be applied to the amount less than 30 million won.

#### Hotel Accommodation Value Added Tax (VAT) Refund for Foreign Visitors

VATs on hotel accommodation will be refunded for one year between April 2014 and March 2015, a revision from the period of January 2014 through December. The tax incentive has been delayed taking into consideration of time needed for promotion and preparation.

#### Taxes on In-kind Investment in Agricultural Corporations to Be Eased

The sales tax on in-kind investments in agricultural corporations will be exempt if the corporations go out of business. The exemption is in consideration of sales tax exemption for in-kind investment in agricultural corporations. However, sales taxes will be imposed when more than 50 percent of equities acquired by in-kind investments are sold within three years from the investment.

#### Income Tax Deduction for Long-term Mortgage Interest Payments to Be Increased

Income tax deduction for long term mortgage interest payments will be increased to cover houses worth up to 400 million won, up from houses worth up to 300 million won. Multiple homeowners are not eligible for the tax credit.



#### Income Tax Deduction for Rent Payments to Be Increased

Rent payments of up to 60 percent or 5 million won will be tax deductible, an increase from 50 percent or 3 million won. **Sales Tax Reduction for Rental Houses** Long-term ownership of rental houses will be eligible for sale tax reduction from the 6th year of ownership. The reduction rate will be 5 percent per year, an increase from 3 percent, and up to 40 percent of tax reduction will be given to 10 years of ownership, up from 30 percent. The tax incentive is aimed at increasing rental homes.

#### Income Tax Reduction for Small Housing Rent

Individual and corporate income taxes will be reduced by 20 percent if their rental homes are registered according to the Rental Housing Act, are worth 300 million won or less and 80m2 or smaller, and have been rented for over 5 years. To receive the tax credit, more than three homes that satisfy the above requirements need to be rented. The tax incentive is expected to increase rental homes.

#### **Enforcement Decree Revisions**

Revenue ceilings to receive the R&D investment tax credit will be lowered from less than 300 billion won to 500 billion won. SME tax deduction for depreciable asset investment will be revised to be more business friendly, as SMEs will be allowed to have their facility investment in depreciable assets fully tax-deducted for shorter period of time.

The customs duty reduction for machinery imports related to factory automation will be temporarily increased from 30 percent to 50 percent until March 2014.

#### 2014 BUDGET PROPOSAL

The 2014 Budget proposal tabled by the government for next year bears in mind the current troublesome tax revenue conditions, emphasizing the role public finance plays in stimulating the economy without hampering Korea's strong fiscal position.

Total government revenues are expected to drop to 370.7 trillion won, a

0.5 percent decrease from the original 2013 budget, due to a decrease in nontax receipts and a slowdown in the growth rate of national tax revenue. Total government expenditures will rise to 357.7 trillion won, an increase of 4.6 percent compared to the original 2013 budget, in order to promote economic recovery. The government will support the economic recovery by making the most of the increase in total government expenditures in 2014, while holding the deficit in the fiscal balance in line with the 2013 budget.

The fiscal balance as a percentage of GDP is expected to post a deficit of 1.8 percent, the same level as the 2013 final budget. National debt as a percentage of GDP is expected to marginally rise compared to the 2013 final budget due to the poor tax revenue situation.

Fiscal soundness will gradually improve over the middle to long-term. The fiscal balance will improve due to increased tax revenues, and a decrease in the growth rate of total government expenditures. The government will promote maintaining a strong fiscal position: tax expenditures will be reduced and the tax base will be



widened, fiscal management systems will be tightened, and fiscal risk management systems will be improved.

The fiscal deficit will be reduced to just 0.4 percent in 2017, and national debt will stabilize in the 30 percent range (35.6% GDP in 2017).

#### Key Polices for 2014 Budget Proposal

The 2014 budget will prioritize five initiatives: stimulating the economic recovery and boosting growth potential, creating jobs, supporting the working class, strengthening national security and realizing a safe society, and improving fiscal soundness and tightening fiscal management.

1 <u>Stimulating the Economic Recovery</u> <u>and Boosting Growth Potential</u> The 2014 budget will focus on boosting domestic demand including investment, while increasing tailored support for exporters. To boost local economies, the government will increase subsidies to local governments and continue to invest in regional SOC projects. There will be increased support to foster a creative economy and develop future growth engines.

2 Creating Jobs

The 2014 budget will provide strengthened employment support, which is tailored to different age groups and women. The government will help ease mismatches between job openings and job seekers by promoting part time jobs and flexible work hours, and will increase support for job training and education programs which are tailored to specific industrial demand.

3 Supporting the Working Class Working class families will receive strengthened welfare support, which are tailored to recipients' life cycles and their specific situations. Welfare recipients will be encouraged to work as they are provided with work-inducing incentives. Welfare for artists will be increased while vulnerable groups will receive expanded support for art appreciation.

- 4 <u>Strengthening National Security and</u> <u>Realizing a Safe Society</u> The government will work on eliminating 4 major social evils, enhancing national security capabilities and diplomatic capabilities, and founding a basis for peaceful reunification. The government will continue to work on the Government 3.0 project, which is aimed at realizing a citizen-friendly government by sharing information and providing the most convenient administrative services.
- 5 Improving Fiscal Soundness and <u>Tightening Fiscal Management</u> The government will continue to pursue fiscal soundness by cutting public sector spending and streamlining fiscal projects. Effective budget spending will be sought through inter-ministerial cooperation and citizen feedback about administrative services.



#### Plans to Support Local Governments and Keep Campaign Pledges for Local Economies

A total of 3.3 trillion won will be spent for local economic development, an increase of 0.3 trillion won compared with the original plan set up in 2013. Local economic support will prioritize job creation, public safety and locally popular projects.

There will be some adjustment between the central government and local governments regarding the role of government and how local governments obtain fiscal resources. Local government tax systems will be revised to help support themselves. The central government will increase childcare subsidies by 10 percentage points and plug local governments' temporary revenue gaps, most of which have arisen due to acquisition tax cuts, by utilizing emergency funds. Starting 2015, the central government will take charge of public care facilities for the elderly, disabled and mentally ill.

Local government consumption taxes

will be increased by 6 percentage points as of 2015, from the current 5 percent to 8 percent in 2014 and to 11 percent in 2015. Revenues from the tax increase will be utilized to supply welfare demand.

Taking into account increases in tax revenues and central government subsidies, which are expected to amount to an average of 1.1 trillion won a year and 0.4 trillion won, respectively, local governments will have an average annual revenue increase of 1.5 trillion won for the next 10 years.

There will be further discussion about adjustments in managing fiscal resources between the central and local governments. From 2015 when the adjustments are implemented, local government revenues are expected to increase by an annual average of 5.0 trillion won for the next 10 years.

#### 2013-2017 National Fiscal Management Plan

The government has prepared a long-term fiscal management plan in order to ensure

that Korea's fiscal soundness improves by 2017.

#### **Key Policies**

In the short-term, the government will strengthen the role fiscal spending plays in reviving the economy, and will restore the virtuous cycle between economic growth and fiscal soundness by increasing the economy's growth potential. The budget will return to balance in the middle to longterm in order to prepare for future risks by reducing tax expenditures and widening the tax base while managing potential fiscal risk factors.

Fiscal policy will be restructured, centered on the Park administration's national tasks, to stimulate the economy in ways that the public can feel in their everyday lives, such as job creation, tailored welfare, and public safety.

#### Mid-term Fiscal Outlook and Fiscal Management Goals

Total government revenues are expected to increase by an average of 5.0 percent per year from 2013 to 2017. The government



will manage total government expenditures in order to ensure that they only increase by an average of 3.5 percent per year from 2013 to 2017. The consolidated fiscal balance minus social security will gradually improve from -1.8 percent in 2013 to the more balanced level of -0.4 percent in 2017. National debt as a percentage of GDP will be stabilized in the 30 percent range.

#### **Managing Korea's Fiscal Position**

1 Increasing the Efficiency of Fiscal Expenditure

> The growth of total government expenditures (3.5%) will trail the growth of total government revenues (5.0%) by 1.5 percentage points, bringing the budget back into balance in the middle to long-term.

> The government will reduce tax expenditures in a long-lasting manner by revising existing legislation. Expenditures will be made more efficient by choosing and implementing fiscal reform projects for

each ministry, combining overlapping or similar projects, modifying inefficient projects, and increasing private sector utilization.

2 Widening the Tax Base

Once tax exemptions and reductions have been allowed to sunset, they will be reinstated only if absolutely necessary, and even then, only after passing a strict review. The government will push to legalize the underground economy focusing on areas that are highly suspected of tax evasion (chronic tax evasion, highincome self-employed, smuggling and offshore tax evasion, among others). Taxes on financial products and financial transactions will also be gradually levied over time.

3 <u>Strengthening Potential Fiscal Risk</u> <u>Management</u>

> Total public sector debt, including debt held by public enterprises, will be calculated and managed. The number of public institutions that have to prepare middle to long-term financial management plans will be increased and the government will ensure that public institutions will adhere to the plan.

> Institutions with less than 2 trillion won in assets will have to prepare a financial management plan in the case that debts exceed assets, or there is a clause stipulating that the government will be held responsible for any losses that occur.

> The government will determine the long-term fiscal outlook and will develop fiscal risk monitoring systems. Outside of existing management indicators (consolidated fiscal balance minus social security and national debt), the government has decided to monitor 4 additional areas: rollover risk, public enterprises, local governments and other areas, which include government guarantees.

4 Improving Fiscal Management Systems The government will promote strengthening the connection between budgets/settlements with performance and establish evaluation functions. The government will construct an 'integrated fiscal information database', and boost public accessibility by expanding information disclosure. The government will develop an integrated government property management system; government properties will, in principle, be charged for usage and special exceptions (such as fees reductions and transfers) will be allowed to sunset.

#### **Funding Allocation Plans by Ministry**

Regarding social welfare, the government will work to make expenditures more efficient while at the same time expanding investment in order to improve the quality of life for Korean citizens. Improving delivery systems, such as enhancing the integrated social welfare information system, will reduce wasteful welfare spending. Regarding education, the government will continue to promote the strengthening of college educational competency and educational restructuring.

As for the economy, the government will streamline fiscal investments, taking into account investment progress, and will boost private investment. With regards to SOC, the government will bring investments, which had ballooned in response to the economic crisis, back into line, and increased support will be provided to help firms enter overseas construction and plant markets.

In the industrial sector, the government will concentrate on increasing future growth engines, such as industrial convergence and software. With respect to agriculture and forestry, the government will strengthen the foundations of rural income creation by supporting the food industry.

Source: Ministry of Strategy & Finance (www.mosf.go.kr)

# FOODPOLIS TO CREATE A HEALTHY FUTURE FOR ASIA AND THE WORLD





SPECIAL REPORT

Something special is transpiring in Korea's ancient culinary capital. On the country's southwest coast, within easy reach of China and Japan, Korea is developing a huge complex that will provide multinational food companies and research institutes unparalleled access to the region's tremendous economic growth story. This special report appeared in the Financial Times edition of November 6<sup>th</sup>.

Food markets in Northeast Asia, comprising Korea, China and Japan, have remarkable growth potential. All three are among the world's top 15 economies, and all are export-oriented with eased trade and investment barriers. The purchasing power of some 1.5 billion consumers in the region provides the optimum conditions for growth for food companies.

When complete, the cluster, which has been named FOODPOLIS, will possess a number of clear advantages to investors, and be an ideal destination for food firms seeking to make inroads into these countries and the greater Asia Pacific region. For starters, some 60 cities with a population of 1 million or more are located within a two-hour flight. The complex itself, located in Iksan City, North Jeolla Province, is very close to Korea's major airports and seaports, and the country's highways and high-speed KTX trains are convenient to use.

Tariff rates have been lowered significantly following Korea's implementation of free trade agreements with 47 different countries, including two major accords with the European Union and the United States.

FOODPOLIS is also being established with a comprehensive support network



that will include three state-funded research centers, including the Food Functionality Evaluation Center, Food Quality and Safety Center and Food Packaging Center. R&D will also be closely aligned with food institutes nationwide.

In addition, firms locating in the cluster are eligible to receive a variety of incentives and benefits, including lowered tax rates and property rental fees, cheap utility charges and even state subsidies. The government plans exemptions on corporate income tax for the first three years, and a 50 percent reduction in the following two. Companies can also avoid property taxes for 15 years and, in some cases, receive rent exemptions from 50 to 100 percent for 50 years, with the potential to extend for an additional 50.

When construction is complete in 2015, FOODPOLIS will be, by any standard, the best place for agrofood, food processing and packaging companies to set up their base and aim for markets anywhere in the dynamic Asia Pacific region.

"The basic concept of this cluster is to create an optimum business and research environment for global food companies. It's a mini city tailored for the food industry," said Mr. Lee Dongphil, Minister of Agriculture, Food & Rural Affairs. "It will be a combination of information technology, culture and food science. The entire system will be friendly to all investors regardless of their nationalities."

FOODPOLIS is being designed to foster the food industry into the next growth engine for not only South Korea, but also other Asian countries.

Clusters of a similar kind exist at Food Valley in the Netherlands and Napa Valley in the U.S. but FOODPOLIS is the first among its kind in Asia and perhaps the world in its emphasis on providing a healthy future for Asia and the world. The cluster is expected to create thousands of jobs and a huge amount of added value for the regional economy. For example, Food Valley hosts the operations of 70 global food firms and 20 research centers, producing an annual output of \$64 billion.

#### The South Korean advantage

Korea is at the center of Northeast Asia, one of the fastest-growing regions in the world. It takes only a few hours to reach major cities in China and Japan. The country's skilled and highly educated workforce, advanced information technology infrastructure, and high economic growth potential are only some of the advantages.

In fact, Korea has been a test bed for many global firms before they target other Asian markets. Foreign firms can use FOODPOLIS as an export base



targeting China as a growing number of wealthy consumers there demand higherquality food items. The cluster will meet the needs of global firms preparing to tap Asia's rapidly growing food markets.

For its part, Korea aims to increase exports of agricultural, marine, and processed food products to \$30 billion by 2020 to become one of the top- 10 food exporters in the world. To achieve this goal, it plans to nurture globally competitive food companies, diversify export markets and enhance global awareness of Korean food.

Korea has recently moved to capitalize on the growing worldwide popularity of Korean pop culture by launching ambitious projects to promote its traditional cuisine, called "hansik." The government runs education programs for chefs in major foreign markets like the U.K., U.S., and China, to help restaurants provide higher-quality Korean dishes and more professional customer service. These efforts will help raise the global profile of the country's food industry and make Korea's agriculture sector more competitive.

#### The FOODPOLIS vision

FOODPOLIS will be a unique place for the leading food companies, labs and food industry professionals who are powering growth in the global food industry. According to government forecasts, companies in the cluster will create some 23,000 jobs.

It will increase the value of the food industry overall by creating a more advanced industrial structure. Supported by R&D centers, for example, firms will be able to provide consumers in the region with top-quality foods. This will create a virtuous circle of economic activity that not only drives growth and profits for corporations, but also supplies increasing household incomes and promotes the local economy.

In North Jeolla Province, many vocational high schools and universities provide courses on agriculture, livestock, fisheries and processed food products, meaning that FOODPOLIS investors can secure talented workers and researchers from a pool of highly educated students.

And foreign firms have already expressed high expectations for the project. More than 80 firms and research institutes have already signed MOUs or expressions of interest to invest, and FOODPOLIS is aggressively marketing itself. NIZO Food Research from the Netherlands said in a message to the Korean government that it is excited for the future of FOODPOLIS:

"The incredible progress made by Korea in other technical fields is well known and we expect that this initiative will be backed by the same dedication and energy."



#### WHEN HARRY POTTER MEETS FOODPOLIS

By Lee Dong-phil Minister of Agriculture, Food, and Rural Affairs





The Opening Ceremony for the London Olympics touched the hearts of many around the globe, showing us the rich traditions of Britain's powerful popular culture. In one singular hour, the world was treated to an incredible parade of more than a century's worth of unrivaled cultural creativity.

It was quite a demonstration of Britain's creative standing in the world, a status that owes as much to the heritage of Shakespeare and the Beatles, as to the British ability to continuously create greatness.

This creativity is not just inspiring. Britain's culture industry generates sixteen percent of the country's GDP, while at the same time burnishing the national brand in the minds of people worldwide.

Koreans watched with avid interest. Where does such soft power come from? Governments cannot create lan Flemings or David Bowies. What governments can do is marshal resources to help the nation capitalize on such innate creativity.

From Seoul, we see efforts like Creative Britain, and we are more than impressed. We look to recreate a similar model, linking multiple industries with concerted efforts in research and development, as we develop and promote a national food cluster, which we've dubbed FOODPOLIS.

Today, the Korean brand is known for consumer electronics and cars but we also see tremendous opportunity for our food industry, and not only in the global popularization of our healthy and delicious Hansik. We are also looking closely at the coming challenges of food security and aggressively targeting food industry opportunities in Northeast Asia to find success. We think our efforts will be of considerable interest to international food companies and food research institutes as well.

Our vision is to bring together food producers and

food researchers, introducing our traditional wisdom on a healthy diet along with advanced information technology, nanotechnology, and biotechnology to taste and food functionality to create products and services that can penetrate the massive consumer markets around the region. Scheduled for completion by the end of 2015, FOODPOLIS will host leading food industry players from Korea and around the world and will be a center for the birth of innovative food products and services.

Korea brings several key advantages to the table. Our country is industrialized and cosmopolitan, and has a business friendly environment with ample opportunities to merge Western knowledge with Eastern potential. We also have a highly educated and motivated talent pool upon which investors can draw.

And the location is strategic. FOODPOLIS is situated in Iksan City in beautiful North Jeolla Province, traditionally known here as our agricultural heartland. Infrastructure will be first class, with quick and easy access to major air and sea port facilities. China and Japan are just a two-hour flight away, putting forty-nine cities of more than one million people within easy reach.

All of this, plus generous government support and our FTAs with various nations including the US and European Union, create a very favorable operating environment for investors.

Together with strong passion and strategic thinking, we hope for a bit of Harry Potter's creative magic to make FOODPOLIS fly. But, in reality we already see exceptionally strong regional demand for food that is safe, healthy, and delicious, and that will only grow as the Asia Pacific food market rises to forty percent of the global market by 2020. This presents a compelling growth story to international food industry players who will find a welcome home in FOODPOLIS.



### FOODPOLIS, A VISION TO FEED A HEALTHY FUTURE

By **Dr. Song Won-o** Professor of Human Nutrition at Michigan State University, USA

When it comes to types of food and food availability, the playing field differs greatly by nation, region and household income level. In nutrition and public health, individual beliefs and behaviors within the context of one's environment play a key role. In both domains, food is an important determinant of well-being and quality of life.

Important concepts and health beliefs have been converging in recent years between the East and West. One significant example is the several-centuries old Korean concept of "YakShikDongWon", the notion that food and medicine originate from the same source. It even outlines our physiological and genetic variations into categories, showing how we respond differently to specific foods.

These Eastern concepts of functional foods, for preventive and therapeutic purposes, are grounded in evidence-based empirical data.

The concepts of "Functional Foods" and "Functional Medicine" have been expanding the connection between food and health in recent years, an endeavor accompanied by intense research and marketing activities. In the West, functional foods have been based on scientific data that can be logically explained, with varying degrees of evidence regarding their efficacy. The idea of functional foods has now gained appeal with the general public.

Meanwhile, the newly emerging concepts of "Nutrigenetics" and "Nutrigenomics" emphasize personal health. "Nutrigenetics" focuses on identifying an individual's genetic susceptibility to disease and the role of genetic variation on the effects of nutrient intake on the genome, while "Nutrigenomics" aims to uncover how specific foods activate genes that influence one's susceptibility to certain illnesses such as cancer.

Two very important potential applications of these scientific concepts are personalized disease prevention by functional foods, and investigating how individual genetic makeup impacts the efficacy of functional foods. This means that individual health can be impacted by our dietary choices as well as our genetic makeup.

Another concept of importance is "Epigenetics," which investigates how one's dietary practices affect personal health outcomes and those of one's offspring. It does this through functionally relevant modifications to the gene without involving permanent changes in the genome. As these changes sometimes remain throughout cell division, the effect can also be inherited generationally.

All these new concepts and evidence, and the converging

Eastern and Western health beliefs and practices that are associated with foods, open opportunities to research and develop "future foods" that can enable improved agricultural practices and better public health.

The process of developing "future foods" will need to incorporate advanced knowledge in medical and nutritional sciences, particularly the "omics": genomics, transcriptomics, proteomics, and metabolomics. Only then can "future foods" lay down the important groundwork for practical application of foodstuffs on sustaining human health and longevity. The personal health paradigm can also be initialized by the food industry in response to the diverse nutritional genomics.

Global convergence of foods has accelerated rapidly through the exponential increase in the import and export of ingredients, commodities, and prepared and ready-toeat products. However, the current geographic variations of the food market are expected to remain widespread, as food behaviors of individuals and communities are deeply intertwined with culture and beliefs, which are the essence of one's perceived comfort and quality of life.

Overcoming these geographic variations or cultural barriers, and addressing genetic predispositions and nutritional genomics, requires localized research and marketing efforts. FOODPOLIS and its affiliated research institutions in Korea will be strategically equipped with entire sets of the most current scientific knowledge and skills, and cutting-edge facilities for venturing into "future foods" for the entire Asian market. Collectively, it is expected to offer access to the necessary scientific network, R&D centers, biotechnology laboratories, and product development centers.

FOODPOLIS is strategically located at the heart of Asia, at the center of, or in close proximity to, the world's most densely populated regions and nations, namely China and India. It is also just hours away from the rapidly emerging economies in Southeast Asia, where the populations in countries like Singapore, the Philippines, Malaysia, Indonesia, Vietnam and Thailand are quickly advancing.

Korea's FOODPOLIS will also benefit from rapid immigration from the aforementioned countries and regions.

All of this activity thoroughly favors international and localized food research for any food companies that want to expand and capitalize on the tremendous economic activity in East Asia. And the only way for innovative food industries to respond to the next generation of consumer demand is through R&D in evidencebased future foods for personalized medicine. FOODPOLIS No.6 2013

## **WFP AND FOODPOLIS** SIGN MOU

# morandum of Understanding Sign Between UN World Food Prog and FOODPOLIS

The World Food Programme (WFP) and Korea National Food Cluster signed a Memorandum of Understanding, on September 25<sup>th</sup>, in order to strengthen their mutual cooperation.





In a significant development, the United Nations World Food Programme and FOODPOLIS signed a memorandum of understanding to promote food security food related emergency issues in the future. As per the MOU that was signed on September 25<sup>th</sup>, FOODPOLIS will also Korean food companies to make donations (cash and products) in order to assist children under age 5, lactating women and pregnant women in North Korea and other developing countries.

FOODPOLIS will be providing full support to the activities of WFP in their work in many of the less developed countries. On behalf of both the organizations, Ms. Claudia von Roehl, Director, Government Partnerships Division WFP and Mr. Park Jong-guk, President, FOODPOLIS, signed the MOU.



### World Food Programme, WFP

The World Food Programme is the world's largest humanitarian agency fighting hunger worldwide. The organization is part of the United Nations System and is voluntarily funded.

Born in 1961, WFP pursues a vision of the world in which every man, woman and child has access at all times to the food needed for an active and healthy life. It works towards that vision with other sister UN agencies in Rome as well as other government, and NGO partners. On average, WFP reaches more than 90 million people with food assistance in 80 countries each year. About 13,500 people work for the organization, most of them in remote areas, directly serving the hungry poor.

In emergencies, WFP gets food to where it is needed, saving the lives of victims of war, civil conflict and natural disasters. After the cause of an emergency has passed, the organization uses food to help communities rebuild their shattered lives.

WFP has been a great help during the hard times South Korea faced in the sixties, and it was the second biggest humanitarian organization in the country. Now that South Korea has become an advanced country, it has become one of the most important donors to WFP.

### SYRIA NEEDS YOUR HELP

2 million Syrians have fled their country, and half of these refugees are children. Millions more live in day-to-day fear for their lives within Syria. Since this conflict started 2 years ago, WFP has been providing lifesaving food to more and more families – thanks to you. But there are still children going to bed hungry each night.

#### **Starting from scratch**

Salma used to live in Damascus and fled to Qamishly, in northeastern Syria, to get away from the fighting. They'd been there for almost a year and managed to build something resembling a home when the fighting arrived there as well.

"We were caught in the crossfire and had no option but to leave as soon as the border opened. And here we go again. We are starting from scratch," she said. The arrival of families like Salma and her husband brings the total number of Syrian refugees in Iraq to over 192,000, with more on the way. Between 4,500 and 13,500 Syrians have crossed the border every day for the past week.

### Among friends

"I am grateful for reaching safety with my family in Iraqi Kurdistan and hope that we can get settled soon," said Rushda, another mother at the camp. "The sun and heat and the difficult conditions here are nothing like what we faced back home—having nothing and being afraid all the time." Rushda came to Iraq from Malkia, a camp in northeastern Syria, for people displaced from their homes. For her, the box of welcome rations she received upon arriving in Iraq was a familiar sight.

"I received the same box back in Syria, so you are our friends wherever we go. I wish you could bring us peace like you send us food," she said.

Please contribute to WFP and help us provide assistance to Syrians.

### PROJECT MONITOR





## AUTUMN DELICACIES

Autumn marks the season of the nation's three most popular kinds of seafood: blue crabs, jumbo shrimp, and gizzard shad.

Blue crab is a common edible crab, found on the coasts of Korea, Japan and China. This species is one of the most commercially important crab resources in the West Sea of Korea and the East China Sea. In the west coast of Korea, mating of blue crabs occurs from August to November with a peak in September and October.

The size at 50 percent copulation of the males and females is approximately 10cm in carapace width. The abundant, creamy roe of the pre-spawning female crabs are best enjoyed in the spring, while the flaky, plump meat of the male crabs is a delicacy best enjoyed in autumn.

Blue crabs are not only tasty, but

are also packed with nutrients. The crab shell contains calcium and chitin and the meat has an abundance of essential amino acids and vitamins. In Korea, blue crabs are known to be effective in the prevention of geriatric diseases and aid in alcohol detoxification.

They are prepared in a variety of ways and can be made into spicy crab soup with vegetables and other seafood or steamed, shelled, and eaten plain. Seasoned raw crabs are also a favorite side dish for many Koreans.

To prepare ganjang gejang, crabs are first thoroughly cleaned using a brush while submerged in a bowl of water, and are then rinsed to remove the moisture.









The crabs are put in an earthenware crock and salted for about six hours. To prepare the sauce, a mixture of ganjang is boiled briefly along with sesame oil, sugar, finely sliced scallions, minced garlic, ginger, and finely shredded fresh red chili pepper. Once the salted crabs are removed from the hangari and placed in a suitable bowl, the hot sauce is poured onto the crabs.

An hour later, the ganjang is removed from the bowl and reheated until boiling. It is again poured over the crabs, and the procedure is repeated for a third and fourth time. The dish can be eaten once the sauce is chilled. If using boiled ganjang after it has been chilled, the gejang can be eaten two weeks after preparation, and it can be preserved for longer. A variation involves adding minced beef while the sauce is poured over the crabs, endowing the gejang with more spices. In recent days, some people add lemon, chili pepper, or traditional medicine when making gejang in order to





remove the fishy smell and to increase its rich flavor.

As for yangnyeom gejang, the dish is made with raw crabs and a spicy and sweet sauce of chili pepper powder, and ground Korean pear, onions, ginger and garlic, as well as whole sesame seeds, and sesame oil. In general, the gejang can be eaten a half day after the preparation and consuming the dish within two or three days is best to have its intact spicy and sweet and sour taste. If crabs are first marinated in a boiled and chilled mixture of eakjeok (filtered jeotgal) and soy sauce before mixing the spicy sauce, the yangnyeom gejang can be well marinated with the latter sauce, and can be preserved longer.

#### Jumbo Prawns

Jumbo prawns are a mouthwatering fall specialty to even the most discerning seafood connoisseur. Jumbo prawns caught at sea are not easy to find outside local fishing areas as these shorttempered shrimp die quickly after they're caught. Compared to farmed prawn, jumbo prawns caught at sea have longer antennas, thicker shells, and chewier meat.

You can eat them boiled, steamed, or fried, but for full flavor, heat a large pot, sprinkle it with coarse salt, and cook the live prawns for about 10 minutes. Take out the shrimp and let them cool for a minute before you start peeling. Each bite of these simply prepared prawns packs a wallop of flavor! If you prefer more seasoning, try dipping the prawns in a mixture of red chili-pepper paste and vinegar. Instead of throwing out the leftover shrimp heads, re-cook them for an extra crispy and delicious treat.

### Gizzard Shad

In the fall, gizzard shads store up plenty of nutrients for the long, cold winter, making them stuffed to the gills with healthy oils and plenty of flavor! The best months to chow down on these delicious fish are between late September and early November. Larger gizzard shads are higher in fat, so make sure to pick a fish over 15cm to enjoy the fish's true taste.

There are many ways to cook and eat gizzard shads; slices of raw gizzard shads taste the best when wrapped in lettuce with chili and garlic. The spicy taste of a seasoned gizzard shad platter mixed with various vegetables and condiments is also a local favorite. However, the best way to cook gizzard shad is to take a whole fish, score it lightly, salt it, and put it on the grill. There's no need to debone it, so once it's done just take it in your bare hands and dig in!

Reference: Official website of Korea Tourism (www.visitkorea.or.kr) FOODPOLIS No.6 2013

## HISTORIC CITY

Ganghwa Island, incorporated into Incheon metropolitan city from Gyeonggi province in 1995, has been recognized and preserved for it's important role in Korea's history, from the prehistoric age to modern times.











Ganghwa is an island in the estuary of the Han River, on the west coast of South Korea. Ganghwa Island is separated from Gimpo, on the mainland, by a narrow channel, which is spanned by two bridges. The main channel of the Han River separates the island from Gaeseong in North Korea.

About 65,500 people live on the island. With an area of 302.4 km<sup>2</sup> (116.8 sq mi), it constitutes most of Ganghwa County, a division of Incheon Municipality. About half of the island's population resides in Ganghwa-eup, Ganghwa Town, in the northeastern part of the island.

The island's highest point is Mani-

san, 469 m (1,539 ft) above sea level. The island measures 28 kilometers (17 mi) long and 22 kilometers (14 mi) wide, and is the 4<sup>th</sup> largest island in South Korea.

The major stage of Ganghwa's history came around the late period of Koryo dynasty. During the national conflict against Mongolian's invasion, the capital was transferred to Ganghwa from Gaeseong for the period of 1232 and 1270. Ganghwa was deemed a most appropriate refuge to keep themselves safely from the invasion of Mongolian forces. The world famous treasure Palman daejanggyeong, 80,000 sheets of Buddah's scriptures could possibly have



### SPOTLIGHT



been engraved during the invasion.

The importance of Ganghwa as a refuge shelter had been successively chosen during Chosun dynasty; two incidents Manchurian invasion, Jeongmyo-horan, in 1627 and Byeongja horan 1636 forced King Injo to take refuge in the island, taking advantage of the natural strategic environment to defend themselves from the enemy attack. Thereafter, Ganghwa had accordingly installed many military facilities to meet the pre-requisite of defending capital; castles, military bases, forts, outposts, batteries and beacon fire mounds etc.

In the later period of the Chosun dynasty, a few incidents of the western power's invasion and Japan made the it the most important military base to have the capital fully defended. Historically, it is significant as being the location of separate punitive incursions; by the French in 1866, the United States in 1871, and the Japanese in 1875 when Korea was emerging from isolation.

Many relics and remains of prehistoric age, Old Stone Age and New Stone Age have been found of their various vestiges in Jangjeongni, Sagiri, Dongmagni. Symbolic huge stone relics of Bronze Age, more than 80 dolmens, were discovered in the vicinity of Bugeunni and neighboring area, of which giant tombs revealed the existence of inhabitants there.

Dangun, the founder of Gojoseon, is said to have made an altar on top of Mani-san and offered sacrifices to his ancestors. His three sons built a legendary Samnangseong castle and relics of Bongcheondae, Bonggaji, Bongeunsa temple, Stone Buddah statue relating to the tales of Bong's family apparently signify the Ganghwa a holy land of Korea and the peoples throughout it's history.

About 70% of Ganghwa's citizens are engaged in farming, mainly rice. Fishery and forestry are other occupations practiced. Hwamunseok is a well-known traditional fancy matting. Since the Goryeo dynasty (10<sup>th</sup> -14<sup>th</sup> centuries), hwamunseok has been produced and exported to China and Japan. The mats are produced in the home handicraft industry.

The Ganghwa turnip is a specialty of the area. It has been cultivated since the 5<sup>th</sup> century. This is recorded in the 17<sup>th</sup> -century Dongui Bogam book of oriental medicine.

Check out more information at http:// english.ganghwa.incheon.kr/

### FOODPOLIS where Innovation meets taste



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