

TITLE How to improve the production performance, health situation and sustainability of pig production in South Korea

Project leader: Robert Hoste
At request of: Mr. Anthony Snellen, agricultural counsellor at the Dutch Embassy in South Korea
Requested budget: 35,000 €
Countries: South-Korea

Contact Topsector:	Organisation	Telephone No.	Email address
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1 Motivation and project aims

1.1 Knowledge requirements for the target group

How to improve the production performance, health situation and sustainability of pig production in South Korea.

1.2 Definition of the problem

The South-Korean pig sector is low performing with several endemic diseases and low sustainability. Feed logistics are inefficient. Pig farms typically have a low technological level and have old-fashioned equipment and housing (Kang, personal communication, 2014).

The performance level of pig production is very low, with only about 15 produced slaughter pigs per sow and year (calculations based on Ban and Myers, 2013), compared to almost the double amount in the Netherlands. This level is slightly better than in China, with only 13.6 produced pigs per sow and year (Hoste et al., 2013). The production cost amounts to about € 3.50 per kg live weight (Kang, pers.communication, 2014), which is about double the level in the Netherlands. Efficiency can be improved, at least theoretically.

One of the reasons for the low performance is the health status. In 2012 Foot-and-Mouth Disease led to massive culling of pigs (3.3 million pigs); at the end of 2013 Classical Swine Fever was found, while other diseases are endemic.

The fluctuating feed prices and generally higher price level lead to low feed availability, which gives pressure on the profitability of the pig farmers. The self sufficiency of the Korean pig sector fluctuates between 60 and 80%, South Korea heavily depends on import of pig meat. The Korean government tries to stabilize the pig market by reducing the number of sows and by promotion of the pork consumption through discounting. An efficiency improvement seems to be possible, at least theoretically.

1.3 Aim(s) of the project

In this project the South-Korean pig sector will be analysed on strengths and weaknesses, threats and opportunities (SWOT) for improvement of the production. Based on this analysis, strategies will be formulated based on combinations of strengths and opportunities (offensive strategy) on one hand, and combinations of threats and weaknesses (defensive strategy) on the other hand. Companies from Korea and the Netherlands will be brought together to implement solutions. A project proposal for the follow up will be written in cooperation with interested companies.

1.4 Target groups:

Pig farms in Korea are the main target group. Dependent to the SWOT results the immediate target may be the governmental extension service of the Rural Development Agency (RDA), independent consultants or opinion makers in companies within the pig production supply chain.

1.5 Economic context:

See 1.2

1.6 Economic Opportunities:

If the performance of pig production will be increased with 25% (which is estimated to be possible, given some example farms in Korea), the sustainability will be improved, the profitability for the farmers will improve and the import dependency will be reduced firmly. Also the dependency to the feed supply and the fluctuating feed prices of feed will be reduced. Attention must be paid to improvement of the health status, as one of the explaining factors of the low performance. Other relevant factors that should be paid attention to are the attitude of farmers to quality feed and breeding material and awareness of the influence of management on the animal and farm performance.

1.7 Economic Threats:

Contagious diseases can restrict efforts to management improvements.

1.8 Desired expertise dlo:

Knowledge of pig production (farm and supply chain), insight into the Korean production, SWOT method

1.9 Expected results:

Insight into solutions for the Korean pig supply chain as to improve the production performance, animal health status, profitability for farmers and sustainability of pig production. Consortium companies from Korea and the Netherlands are willing to cooperate as to implement the solutions. Project proposal for a cooperative project aiming to implement findings as to improve the performance, health situation and sustainability of pig production in South Korea. To be defined after and based on findings of the analysis.

2 Work plan

2.1 Approach and time schedule

Phase 1: Orientation and desk research – April-May 2014

Information will be collected on the current situation in the pig sector and supply chain.

Phase 2: Interviews – April-June 2014

Country visits and interviews with several stakeholders in South Korea and the Netherlands (meat and feed industry, housing equipment, government etc.).

Phase 3: Analysis – July-September 2014

SWOT analysis (strengths, weaknesses, opportunities and threats) as to define integral solutions for the improvement of pig production in South Korea.

Phase 4: Dissemination – October and November 2014

Presentation for interested parties in the Netherlands (WUR) and in South-Korea (Dr. Ham)

Attempt to setup a consortium; defining action points for stakeholders

Writing a project proposal for a cooperative project. RDA representative Dr Jun-Sang Ham, WUR liaison coordinator will make effort to cooperate with RDA.

2.2 Outputs

- Analysis with insight of the current situation and integral solutions to realise an effective and efficient Korean pig supply chain (power point format)
- A consortium willing to cooperate as to implement the integral solutions.
- Project proposal for a cooperative project.

2.3 Dissemination to target groups

Presentation for interested parties in the Netherlands and in South-Korea.

Basis for a foreseen follow-up main project in which dissemination will play an important role

3 Project organisation

3.1 Project team (Wageningen UR)

Name	Organisation	Role	Email address	Telephone No.
Robert Hoste	LEI	Project leader	Robert.hoste@wur.nl	+31-317.484654
Nico Bondt	LEI	Pig prod.economist	Nico.bondt@wur.nl	+31-317.484559
Dr. Jun-Sang Ham	RDA and WUR	Animal prod.economist WUR liaison officer	Jun-Sang.ham@wur.nl	+31-317.486805

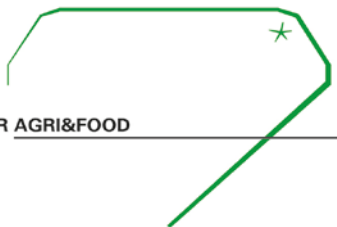
3.2 Involved parties (besides Wageningen UR)

Name	Organisation	Role	Email address	Telephone No.
Mr. Youngwha Ham	Hamconsulting Co. Ltd.	Farm consultancy, software	young@hamcon.co.kr	+82-10.6264.1421
Mr. Mark Janssen	Fancom	Housing equipment, technology	markjanssen@fancom.com	+31-77.3069600
Mr. Jan Anné	Nukamel	Piglet feed company	jana@nukamel.com	+32-478-038726

Hamconsulting (located in Seoul) is a consulting company for the Korean livestock sector and develops farm management software.

Fancom (located in Panningen) is the global leader in the development of IT and automation systems for the intensive livestock husbandry sector. Activities include climate control, feeding automation, biometrics and data management. Fancom's local dealer, Porcitech (in Cheonan), will be requested to cooperate in the project. Porcitech is active in the professional farming sector and has a broad network with stakeholders in the entire supply chain and Korean government.

Nukamel (located in Ede and Weert) is a feed company and focuses on supply of milk products for piglet feed. Nukamel has extensive contacts to specialists in the Korean feed industry.



3.3 Monitoring and evaluation

During the project there will be regular contact to the agricultural counsellor in Seoul as to monitor the project. An review of the process and draft result will be done by a senior researcher of LEI with relevant expertise according to the ISO handbook of LEI.

4 Budget

Budgets 2014

Financial source	Budget
Topsector Agri & Food, cluster International	35,000 €

5 Summary

The South-Korean pig sector is suffering from low performance and several diseases; the production is accompanied by low sustainability. These problems lead to low and fluctuating profitability, sensitivity to feed price volatility and fluctuation of import volumes.

In this project the South-Korean pig sector will be analysed on strengths and weaknesses, threats and opportunities (SWOT) for improvement of the production. Solutions will be defined. Companies from Korea and the Netherlands will be brought together as to implement solutions. A project proposal for a cooperative project will be written.

6 Project keywords:

South-Korea, pig production, performance, animal diseases, sustainability, meat import

Literature

Ban, Y.K. and Myers, M.A., 2013. *Livestock and Products, Annual. Republic of Korea*. GAIN Report Number KS1343. USDA FAS.

Hoste, R., D. Hu and J. Tolkamp, 2012. *Investment and export opportunities in sustainable pig production in China*. Den Haag, LEI, Report 2013-018.

Kang, Hojin, Agricultural policy officer, Embassy of the Kingdom of the Netherlands, Seoul. Personal communication, February 2014.