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## **Risk Attitudes and Risk Management Strategies of Swine Producers in Thailand**

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## 8 CONCLUSION AND POLICY RECOMMENDATIONS

This chapter provides a summary of the background information of the study, theoretical framework, methodology, and the main findings from the descriptive statistics and the econometric analysis. Recommendations for the farm level, government policy implications, and limitations of the study, and suggestions for future research are presented.

### 8.1 Background information of the study

Agriculture is an important sector in the Thai economy. Almost 40 percent of the Thai labour force is dependent on this sector, even though the agricultural GDP contribution has decreased from 40 percent in the 1950s to around 10 percent today. Noticeably, in every economic crisis that Thailand has experienced, agriculture has played a vital role in absorbing labour and providing a temporary refuge from other sectors for many affected families. Thailand has set a national goal to become the kitchen of the world, which will require tremendous improvement in the agricultural sector in order to be competitive in the international markets. Although Thailand has been an important world exporter of several agricultural commodities, there are still many constraints and challenges hindering the potential of its swine industry. As a result, at present the country produces pigs primarily to meet domestic demand. More than half the total pig production in Thailand occurs in the central region where large farms are densely clustered around the country's biggest market, the Bangkok metropolitan area. The rest of the pig production is scattered around the larger regional cities such as Chiang Mai in the north.

There are three major pig production systems in Thailand: backyard pig raising systems, integrated farming systems which include pigs, and industrialized commercial pig farming systems. In 2006, the average number of pigs per farm was 34 animals. The total pig population in Thailand was 7.2 million animals, of which 92 percent were improved animal breeds raised by commercial farms which owned by 76 percent of the total Thai swine producers. The remaining 8 percent of the pigs are native animals which were raised mostly for family consumption in mountainous and remote areas. The producer price of pigs in Thailand is relatively competitive with other world major pig producers. However, Thai farmers are regularly faced with risks such as pig price fluctuations, animal diseases, financial liquidity, etc. Likewise, other factors like new and emerging issues including environmental concerns and farm standards add to the decision making risk of swine farming. In order to help alleviate problems of the industry, the Thai government established the Pig Board (Pig and

Product Development Board) which is comprised of various stakeholders: officials, farmer groups, and private representatives. However, at the farm level, there is still a great deal of concern among swine producers regarding industry risks and the various tools available to reduce those risks.

## 8.2 Theoretical framework and methodological aspects

Risk is an uncertain consequence that affects the wellbeing of the decision maker. The consequences of decisions in farming are often not known before those decisions are made; therefore, in agriculture, risk is common and producers are subjected to many types of risk including production risks, price risks, financial risks, personal risks and institutional risks. In such risky situations, the choices which are available for a firm still include those types of decisions that are applicable under conditions of certainty. In addition, various responses can be introduced such as risk reducing input use, enterprise diversification, vertical integration, production and market contracts, insurance, the collection of information, farm financing, holding reserves, and flexibility.

There is often a combination of four basic alteration affects which can influence the distribution of the final outcomes resulting from risk management. These include changing the dispersion, shifting the expected value, changing the general shape of the distribution and cutting off one end of the distribution. However, there is no one specific risk management strategy that is best or that works in all situations, as differences among individuals are clearly evident, e.g., risk preferences, socio-economic characteristics, farm objectives, and available risk management strategies. It is possible to assess risk attitudes under the framework of the Subjective Expected Utility using Pratt and Arrow's relative risk aversion coefficient and attitudinal scale, the two methods most commonly used in empirical studies of risk.

In order to better understand the decision-making behavior in risky environments among the swine farmers in northern Thailand, risk attitudes, significant risk sources, strategies used to manage risks, farmer characteristics, and farm practices were observed. The field study, conducted from July – October, 2007, applied a multi-stage random sampling procedure. Primary data was obtained using structured-questionnaire interviews to represent the 95 percent confidence level of the swine producing population in the northern region. The collected cross-sectional data was then analyzed using four analytical tools: descriptive statistics, profitability analysis, risk attitude analysis, and econometric models (factor analysis, Ordinary Least Squares, simple- and multiple regressions). The focus of the study is to assess the degree of risk aversion or risk tolerance among the

farmers; to reveal the structure and prioritized importance of the underlying risk sources and risk management strategies; and to examine factors affecting risk attitudes, risk source factors, and application levels of risk management strategies.

## **8.3 Summary of the main findings**

### **8.3.1 Main findings of the field study**

A total of 408 swine producing farm households were interviewed from three provinces, Chiang Mai (218), Lam Phun (46), and Chiang Rai (144) during the field study to obtain primary farm household data. Most of the respondents were male and the average age of the farmers was around 45 years; the average duration of their formal schooling was approximately 6 years. The average family size was 4 persons, a child and three adults. Commercial swine producers represented 73 percent of the total (289 respondents), and most of whom rated pig production as the most important economic activity in their family. Among the remaining 27 percent (119 respondents) who were non-commercial swine producers, pig production was a less important activity compared to other food crops. Pigs were produced mainly for family consumption. At the same time, none of the non-commercial swine producers were affiliated with any swine-related institutions, while 43 percent of the commercial farmers were co-operative members, 28 percent were production contract-farmers, and 29 percent were independent farmers.

On average, the northern Thai swine producers had about 11 years of pig farming experience and kept 270 pigs per household. However commercial farmers were keeping more pigs than the non-commercial farmers. The commercial farmers can be categorized into four farm sizes according to the number of pigs raised, i.e., small (<45), medium (45-99), large (100-450), and extra-large (>450). Annual revenue from pig production ranged from between 2,100 and 67 million THB, with an average of 1.6 million THB. Pig income represented about 82 percent of the commercial farmers' total household income. There was clearly a difference in both farm practices and management between commercial and non-commercial swine producers. All of the non-commercial producers raised their pigs in the village using a traditional backyard system, while three-fourths of the commercial farmers kept their animals at least 1 kilometer away from residential areas. Most of the non-commercial swine producers fed their animals solely with farm residues, while a few also used minimal amounts of commercial complete-feed to mix with the farm residues. In comparison, the majority of the commercial farmers used exclusively prepared feed from feed companies. Furthermore non-commercial farmers immunized their animals only if subsidized vaccines and

services were available, e.g., from GOs or NGOs, while at least three vaccines were regularly administered to each animal by the commercial swine farmers. In addition, about one-third of the non-commercial farms had no special means of managing farm pig manure, to prevent it from flowing directly into nearby waterways. Almost all of commercial farmers, however, used at least one method to manage waste, with waste ponds, biogas, and collection of waste for sale or for use in farming being the most common. Moreover, almost all of the non-commercial farmers provided no method for temperature adjustment for their native pigs on their farm, while about four-fifths of the commercial farmers applied either one system or a combination of systems including bathing, water dripping, and evaporative cooling to reduce unfavorably high temperatures. Furthermore it was found that the commercial farmers were more likely to have training, technical consultations, pig related magazine subscriptions, and hired farm labour. It is also important to note that none of the non-commercial farms applied for government farm standard certification, while around one half of the commercial farms were already certified by the Department of Livestock Development.

Differences between the two groups of pig farmers were not only noticeable in their pig farming practices and management, but also could be seen through farm performance indicators such as average daily gain, feed conversion rate, and number of piglets per sow per year. Commercial farms were generally superior to non-commercial farms in each of these areas. Due to the larger number of pigs raised and better farm performance, the commercial farms on average generated an annual pig farm revenue which was over 120 times that of their non-commercial colleagues.

On average, feed contributed about 91 percent of total variable cost in pig production, while the remainder were the costs of animal stock, medication, and other farm management expenses. Profitability analysis showed that the swine business for commercial independent farmers had a negative profitability during the field study, due to the very low pig prices during that period. The other two farm groups were still making profits: the contract farmers due to a stable payment of farm contracts and non-commercial farmers because they raised their animals with negligible production costs. Nevertheless, the gross margins of all farm groups were positive at the going pig price. However if the average pig price per kg over the past 12 years is used in the calculation along with the actual total cost in 2007, all farmers combined, co-operative members and commercial independent farmers would have made a profit of 12.5, 6.7, and 10.7 percent, respectively, while contract farmers would have made a profit of about 16.4 percent regardless of the pig price.

### 8.3.2 Main findings of risk attitudes

Uncertain consequences in pig farming had a negligible effect on the welfare of non-commercial swine producers. However, for the commercial swine producers, pig farming was their crucial means of livelihood, thus any uncertain consequences in the activity was a risk to their wellbeing. For that reason, the study examined risk attitudes of the 289 commercial swine producers using two approaches: Pratt and Arrow's relative risk aversion using the Subjective Expected Utility framework, and risk tolerance with a 7-point attitudinal scale.

The results of the risk attitude analysis show that the northern Thai commercial swine producers were somewhat risk averse ( $R_r=0.86$ ) where  $R_r=0$  implies risk neutral. The average degree of risk aversion was different among the farmers who were co-operative members ( $R_r=1.39$ ), independent farmers ( $R_r=0.95$ ) and contract farmers ( $R_r=-0.09$ ). Those results imply that those three farm groups are rather risk averse, somewhat risk averse, and risk neutral, respectively. Whereas the risk tolerance of all commercial farmers combined was moderate, contract farmers had the highest risk tolerance level. The study further investigated the relationship between the two risk attitude measurement approaches using OLS regression analysis. The results show a significant inverse relationship between risk aversion and risk tolerance. Moreover, risk attitudes in terms of degree risk aversion were negatively affected by three socio-economic characteristics: years of pig farming experience, pig income contribution as a proportion of total household income, and farm size. These three risk source factors were significantly associated with the swine producers' degree of risk aversion. Price and production factors had positive affects on risk aversion, and personal- and institutional factors had negative affects.

### 8.3.3 Main findings regarding risk sources

Ten essential risk sources threatening the success of pig farming in the study area were investigated. The prioritized risk sources according to the potential impact level to economic performance measured with the 7-points rating scale are as follows: pig price fluctuations, rapidly increasing feed prices, debt levels, animal diseases, interest rates, personal capabilities, weather conditions, willingness of the next generation to continue in the swine business, farm standard regulations, and environmental concerns. The study also identified underlying structures of those ten crucial risk sources using factor analysis using the latent root criterion of an eigenvalue greater than 1.0. The most important risk factors in study area are labeled as price and production risks due to their significant loadings to the four risk sources of pig prices, feed prices, weather and animal diseases. The other

three important risk factors in descending order of importance are designated as financial factors, personal factors and institutional factors due to their underlying risks.

The study also investigated further the socio-economic variables influencing the risk source factors, using OLS regression analysis. It was found that the variables of farm organization and farm practices (contract farming, magazine subscriptions, pig sty separation of breeding and feeding animals, evaporative cooling systems and regular technical farm visits) were significantly associated with the prices and production risk factor. Farm size had a positive relationship with the risk factor which implies that larger farms were more exposed to price and production risk factor than smaller farms. At the same time, only one variable, family size, was negatively associated with the second most important risk factor, financial risk. This shows that the financial risk factor was generally equally important to all northern swine producers, regardless of family size. Personal and institutional risk factors were associated with many common variables including farmer characteristics (education level), farm organization and location (co-operative members, contract farming and Chiang Rai farmers), and farm practices (number of trainings). There are also variables significantly associated with the personal risk factors such as years of pig farming experience, farm size, having a regular pig buyer, subscribing to pig-related magazines, separation of breeding and feeding animal housing, and technical farm visits).

#### **8.3.4 Main findings regarding risk management strategies**

Due to the many risks in the pig business in the study area, the farmers used a combination of different tools to manage and reduce the risks. There were 20 important tools used at various levels by the swine producers. Those tools are related and can be structured into five main risk management strategies: farm specialization, farm responsiveness, animal husbandry improvement, farm finances and farm reserves. Farm specialization, the most important strategy, loads significantly and negatively to piglet production for on-farm use and to diversification of economic activities, where it loads positively to use of evaporative cooling systems, contract farming, and regular farm technical visits. The second important strategy, farm responsiveness, significantly loads to information access, membership in institutions, vaccination regularity, waste management, and animal medicine and chemical use. Animal husbandry improvement is significantly correlated to animal breed quality, feed quality, and farm animal housing and sanitation. The fourth strategy, farm finances, loads significantly to debt levels, interest rates, and use of credit. The least important

strategy, farm reserves, loads significantly to cash saving and storage of feedstuffs and supplies.

The results show that the most important risk management strategy, farm specialization, is significantly and positively related to the variables pig income as a percent of total household income, contract farming, and personal and institutional risk factors. Farm specialization is negatively related and farm diversification is positively related to the age of the respondent, co-operative membership, and price and production factors. At the same time, farm responsiveness is significantly and positively related to years of farm experience, co-operative membership, contract farming, price and production factor, and personal factor. Degree of risk aversion is the single variable which has a negative relationship with the risk management strategy of farm responsiveness. The animal husbandry improvement strategy is related to the two variables co-operative membership (positive) and institutional risk factor (negative). Farm finance is negatively associated with years of pig farming experience, but positively associated with farm size and personal risk factors. Finally, farm reserve strategy is related positively to farm size and to institutional risk factors, while it is negatively related to pig income as a percent of total household income, contract farming, degree of risk aversion, and finance risk factors.

The common factors associated with the use of important risk management strategies by commercial swine producers are farm size, co-operative membership, contract farming, years of pig farming experience, price and production risk factors, and institutional risk factors.



## 9 ZUSAMMENFASSUNG (GERMAN SUMMARY)

Risikoverhalten und Risikomanagementstrategien der Schweineproduzenten in Thailand

### 9.1 Fragestellung und Ziele der Forschungsarbeit

Risiko ist ein unvermeidlicher Bestandteil jedes Geschäftsbereichs. Dementsprechend sind auch Landwirtschaftsbetriebe verschiedenen Unsicherheiten und Risiken ausgesetzt. Die Konsequenzen von Handlungen oder Ereignissen sind oft erst im Nachhinein bekannt und führen zu Ergebnissen, die über oder unter den erwarteten liegen. Die Aufgabe der Betriebe besteht darin die Risiken effektiv zu managen und alle am Geschäft Beteiligten in die Lage zu versetzen, mit unerwünschten Ergebnissen umzugehen. Die meisten Personen verhalten sich dabei risikoavers und verzichten auf eventuell höhere Gewinne zu Gunsten eines minimierten Risikos (HARDAKER *et al.*, 2004). Im Falle von Landwirtschaftsbetrieben führen potentielle Risiken dazu, dass sichere Anbaumethoden bevorzugt und die Adaption neuer Techniken vermieden wird. Dadurch führt das risikoaverse Verhalten zu höheren Betriebskosten und einer reduzierten ökonomischen Effizienz (FLEISHER, 1990).

Für Landwirtschaftsbetriebe stellt die Schweineproduktion weltweit eine wichtige Nahrungs- und Einkommensquelle dar. Der weltweite Konsum von tierischen Eiweißen wird zu 35% aus Fisch, zu 26% aus Schweinefleisch, zu 20% aus Geflügel, zu 16% aus Rindern sowie zu 3% aus anderen Quellen gedeckt. In Thailand wird Schweinefleisch primär für den einheimischen Markt produziert. Auf Grund von zahlreichen Problemen in der Schweineindustrie wird lediglich 1 Prozent des Gesamtoutputs in gekochter oder gefrorener Form exportiert.

Um den Anforderungen des internationalen Marktes für Schweinefleisch zu genügen, müssen sich die Thailändischen Produzenten unter Anderem mit Themen der Tiergesundheit und Tierhaltung sowie der Überprüfbarkeit der Wertschöpfungskette auseinandersetzen (BANCROFT, 2005). Schweineproduzenten in Thailand züchten verschiedene Rassen unter unterschiedlichen Bedingungen. Etliche moderne Betriebe haben in die Ausstattung und das Management investiert, um internationalen Standards zu genügen, da in Zukunft vermehrt Schweinefleisch exportiert werden soll. Da in Thailand kein offizielles System zur Einteilung der Schweinefleisch-Qualität besteht, werden alle Schweine zu gleichen Preisen gehandelt.

In Abhängigkeit von der Situation der Industrie stellt die Schweineproduktion in Thailand ein lukratives oder schwieriges Geschäft dar. Gemäß OAE (2008)

besteht eine wichtige Risikokomponente aus dem 3-5 jährigen Schweinepreiszyklus. Die Preisfluktuationen betragen in den Jahren 1996-2007 rund 35 Prozent des Durchschnittspreises. Wegen der Aussicht auf Gewinne steigt die Schweineproduktion während der Hochpreisperioden rasch an, was zu einer Sättigung des Marktes führt. So stieg die Anzahl Schweine während eines dreijährigen Zyklus von 750,000 auf über 1 Million. Mit der Sättigung des Marktes und dem darauffolgenden Sinken der Preise werden insbesondere Kleinproduzenten zumindest kurzfristig aus dem Markt verdrängt (BEEK, 2007). Weitere Risiken für Schweineproduzenten in Thailand sind Änderungen in den Regulationen betreffend den Betriebsstandarts, Arbeitskraftknappheit, finanzielle Engpässe und Tierkrankheiten.

Unter Berücksichtigung der aufgeführten Grundbedingungen analysiert die vorliegende Studie die folgenden Forschungsfragen:

1. Welche Rolle spielen Risiken in der Schweineproduktion in Thailand?
2. Welche Beziehung gibt es zwischen den verschiedenen Risikofaktoren und ihren Managementstrategien?
3. Welche Variablen beeinflussen die verschiedenen Risikofaktoren und das Risiko-verhalten der Landwirte?
4. Welche Variablen beeinflussen die Adaption verschiedener Risikomanagement-strategien?

## 9.2 Forschungsmethodik

Die Studie basiert auf einer Stichprobe, die mittels verschiedenen Erhebungstechniken (gezielte, geschichtete, Zufalls- und Clusterverfahren) unter den Schweineproduzenten in Nordthailand erhoben wurde. Von den 76.662 Schweineproduzenten in 17 Provinzen wurden 408 interviewt, um Resultate auf einem Vertrauensniveau von 95 Prozent zu erhalten. Die Daten zu den Landwirtschaftshaushalten beinhalten sozioökonomische Charakteristika, Betriebspraktiken und -management, Angaben zum Risikoverhalten, die ökonomischen Auswirkungen von zehn verschiedenen Risiken und Angaben zur Anwendung von zwanzig verschiedenen Risikomanagement-Tools.

Die Analyse basiert auf den Primärdaten aus der Haushaltsbefragung und der Preisstatistik für lebende Schweine (ab-Hof-Preise) des Büros für Agrarökonomie (OAE, 2008). Die ökonomische Performance der unterschiedlichen Produzenten wird mittels einer Profitabilitätsanalyse untersucht, Risikoaversionskoeffizienten beschreiben das Risikoverhalten der Produzenten. Eine Faktoranalyse identifiziert

die wichtigsten Risikofaktoren und reduziert die Anzahl der Variablen für die multiple Regressionsanalyse der Risikofaktoren und -managementstrategien.

Abschließend gibt die Studie Ratschläge auf der Betriebs- sowie der politischen Ebene, basierend auf den empirischen Resultaten, den Kommentaren und Vorschläge der Landwirte, den gegenwärtigen Regulationen in Thailand und dem internationalen Umfeld für Schweineproduzenten.

### **9.3 Resultate und Diskussion der Studie**

Insgesamt nahmen 408 Schweineproduzenten aus den Provinzen Chiang Mai (218), Lamphun (46) und Chiang Rai (144) an der Untersuchung teil. Die Resultate zeigen, dass 27 Prozent die Schweinezucht für den Eigenkonsum (nicht-kommerziell) betrieben. Die restlichen 73 Prozent betreiben die Schweinezucht als Einkommensquelle (kommerziell). Die nicht-kommerziellen Landwirte halten im Durchschnitt weniger Tiere als die kommerziellen, auch bestehen Unterschiede in den Betriebspraktiken.

Mit Ausnahme der Vertragslandwirte, die den Änderungen in Preisen und Kosten nicht unterworfen sind, war der Gewinn der kommerziellen Landwirte während der Untersuchungsperiode negativ. Die Bruttohandelsspanne dagegen war für alle Landwirte im betrachteten Zeitraum positiv. Landwirte ohne Schulden und mit geringen Abschreibungskosten hätten auch unter den schlechten Preisen Gewinne erzielen können. Die thailändischen Statistiken zeigen zudem, dass Situationen mit tiefen Preisen in der Regel nur wenige Monate andauern. Eine Berechnung mit dem Durchschnittspreis für Schweine der letzten zwölf Jahre und den Kosten im Jahr 2007 ergab für alle Gruppen einen relativ guten Profit. Der durchschnittliche Profit stellt damit den Hauptanreiz zur Schweineproduktion in Thailand dar, ungeachtet der Risiken durch die hohen Preisschwankungen.

Die Analyse des Risikoverhaltens zeigt, dass die kommerziellen Schweineproduzenten in Nordthailand eine geringe Ergebnisminderung in Kauf nehmen, um mehr Sicherheit zu erreichen. Bezüglich der Risikoaversion zeigt sich für Landwirte, die in einer Kooperative organisiert sind, der höchste Wert, für Vertragslandwirte der geringste. Dazwischen liegt der Wert für die unabhängigen Landwirte.

Basierend auf den Resultaten der Faktoranalyse können vier Risikofaktoren als relevant angesehen werden: Preis- und Produktionsfaktor, finanzieller Faktor, personeller Faktor und institutioneller Faktor. Daneben existieren fünf relevante Risikomanagementstrategien: Spezialisierung, Reaktionsfähigkeit, Viehzucht, Verbesserung der Finanzen und Sicherstellung von Reserven.

Die Resultate der OLS Regression zeigen, dass Vertragslandwirtschaft und verschiedene Betriebspraktiken (Informationen aus Fachzeitschriften, getrennte Ställe zur Fütterung und Aufzucht, Kühlsysteme und technische Beratung) mit einer Reduktion des wichtigsten Risikofaktors (Preis- und Produktionsrisiko) einhergehen. Die Charakteristika der Landwirte (Alter, Ausbildung, Erfahrung) dagegen beeinflussen das Preis- und Produktionsrisiko nicht signifikant. Das finanzielle Risiko, der zweitwichtigste Risikofaktor, hat für alle Gruppen von Landwirten dieselbe Bedeutung. Der personelle und institutionelle Risikofaktor dagegen ist abhängig von den Charakteristika der Landwirte, sowie der Betriebsorganisation und -praktiken.

Hinsichtlich der Risikomanagementstrategien kann festgehalten werden, dass Vertragslandwirte sowie Landwirte mit einem hohen Einkommen aus der Schweinezucht die Risiken durch Spezialisierung minimieren. Ältere Landwirte sowie Landwirte welche in Kooperativen organisiert sind, neigen dazu ihren Betrieb zu diversifizieren, um die Preis- und Produktionsrisiken zu minimieren, in Kooperativen organisierte Landwirte setzen zudem auf die Aufzucht der Tiere. Erfahrene und Vertragslandwirte sowie Kooperativmitglieder wenden auch die Strategie der Reaktionsfähigkeit an. Größere Betriebe und Landwirte mit geringer Erfahrung benötigen mehr Kredit. Das Anlegen von Reserven ist eine wichtige Strategie für Großbetriebe, jedoch nicht für Vertragslandwirte.

## 9.4 Zusammenfassung und Ratschläge

Schweinezucht ist ein profitables Geschäft in Thailand, trotz der fluktuierenden Preise und verschiedenen weiteren Risiken. Die Produzenten sind generell gering risikoavers, beinahe risikoneutral. Der wichtigste Risikofaktor ist der Preis- und Produktionsfaktor, Farmspezialisierung stellt die wichtigste Strategie zur Risikominderung dar.

Unter Beachtung der empirischen Resultate, der gegenwärtigen Situation in der thailändischen Schweineindustrie und dem internationalen Marktumfeld, präsentiert die Studie die folgenden Vorschläge zur Verbesserung der thailändischen Schweineindustrie. Auf der Betriebsebene:

- Verbesserung der Betriebspraktiken durch eine Trennung der Fütterungs- und Aufzuchtställe, Installation eines Kühlsystems, regelmäßige technische Überprüfung und Einhaltung einer optimalen Betriebsgröße unter Berücksichtigung der Fähigkeiten und Möglichkeiten des Landwirtes.
- Konstantes Erneuern des landwirtschaftlichen Wissens. Da Risiken dynamisch in Zeit und Raum sind, sollten die Landwirte in den Erhalt der

neusten Informationen investieren. Informationsquellen sind beispielsweise Fachzeitschriften, Internetseiten, Schulungen und Seminare, Spezialisten und Berater etc.

- Kooperation in institutionellen Organisationen wie Netzwerken, Vertragslandwirtschaft oder Kooperativen. Dies bietet eine gute Plattform zum Austausch von Ideen und Informationen bezüglich des Umgangs mit Risiken.

Auf der politischen Ebene:

- Unterstützung von Risikomanagementstrategien, welche die Fleischqualität und Betriebspraktiken verbessern. Hierzu gehört die Einführung von Labels und deren Verknüpfung mit dem Schweinepreis, um die verschiedenen Marktteilnehmer zu verlinken und den Informationsfluss zwischen Produzenten, Händlern und Konsumenten zu gewährleisten.
- Bereitstellung eines speziellen Fonds für Schweineproduktion und die Entwicklung von Schweineprodukten. Der Fonds kann auch als Mechanismus zur Förderung der Adoption verbesserter Technologien und Betriebsmanagementstrategien sowie zur Glättung der Einkommen aus der Schweineproduktion genutzt werden.
- Promotion nationaler Beratungsprogramme zu Risikomanagementstrategien in der Schweineproduktion, die Informationen zu den Themen Produktion, Tiergesundheit, Verarbeitung, Marketing und Regulationen etc. anbieten.
- Unterstützung der nationalen Forschung und Entwicklung in der Erarbeitung lokal angepasster Technologien und Wissen zu den Themen Aufzucht, Tiergesundheit und Medikamente, Betriebspraktiken und -management, Fleischverarbeitung, Marketing, etc.
- Stärkung der bestehenden legislativen Instrumente, wie Gesetze und Regulationen mit Bezug zur Schweineproduktion und -vermarktung.