



Risk Assessment for a Social Service in a Dairy Farm

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The objective of this thesis was to develop an occupational safety assessment for Finnish caretaking company operating in an agricultural setting. Knowledge base for this thesis was risk management, occupational safety from social services perspective. This thesis employed qualitative and developmental research methods to gather information, such as interview and literature review. The resulting assessment is likely to be developed into safety plan which in turn is used to monitor the efficiency of opted measures.

The assessment is done in cooperation with the owner of the company, as it serves purpose of introducing the risk assessment process, so it can be iterated without external help, and the owner knows her business better than others. The assessment results were inserted into virtual spreadsheet allowing easy access and modifiability in the future. The company has good measures in mitigating existing risks, requiring only small enhancements to mitigate newly discovered ones.

Keywords: Risk Management, Social Services, Occupational safety

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1 Introduction

The case company for this thesis is a Finnish care company operating in local level in Northern Finland. The company is privately owned, and it provides nature assisted social services to the clients who need mental or physical rehabilitation. Care company is a social and healthcare associated company which provides services (Rissanen & Sinkkonen, 2004) in pursuit to better the clients' mental and physical well-being. The needs vary from client to client, as they come from different backgrounds. This is a very important issue to notice, as it can largely shape the characteristics of the service provided.

The company needs to have an appropriate safety plan for the service, that maps the occupational safety risks during the provided services. Currently the company's service is notifiable activity. Notifiable activity reports to municipal organ responsible for social services in which it operates (Valvira, 2020), if it operates on multiple municipalities it is required to notify each of them respectively as stated in Law on Private Social Services (Finland 2011). In this case the supporting service for social services aims for improvement of person's independent life by offering social encounters and limiting exclusion with group activities.

The developmental plan of the company is to become a licensed social service provider, licenced to provide round-the-clock service. In Finland, this licence is granted by Regional State Administrative Agency (Aluehallintovirasto), if the service operates in one municipality, if it operates in multiple municipalities, the licence is granted by National Supervisory Authority for Welfare and Health (Valvira). The employer aims to transfer from notifiable activity to licenced service provider after retiring from the current occupation, Being a notifiable activity, the safety plan is a part of self-monitoring plan which is required by Law on Private Social Services (Finland 2011). Self-monitoring means the service provider's independent quality and client safety evaluation and control, to attain established quality and safety requirements (Decree on Private Social Services and Public Elderly Care Self-monitoring Plan 2014). The service takes place in a dairy farm and the animal shed is the main location for the service, the service consists of mundane farm work, feeding the cows, cleaning the shed and walking the cows. This thesis examines the occupational safety risks within the animal shed from the service perspective.

This thesis will describe how the required information is gathered, interpreted, and compiled into a risk assessment which will be used in creation of the safety plan. The starting situation in the company, and for this thesis is: 'No risk assessment for the services'. Risk assessment is a process for finding risks that threatens the target and analysing those risks and evaluating

them (ISO, 2018), and to improve the situation, research methods will be used in completing task. Creating a plan to solve the development problem helps the company to identify the issues threatening the service, and to prepare for future. Aim of the thesis is to describe how the risk assessment process for the service will be done. The thesis is a functional in nature, meaning it will create a new research and as an outcome will come the premises safety assessment from occupational safety perspective. The risk assessment process as a whole was conducted between late November 2020 and late January 2021, from agreement with the Service provider to creating the safety plan. The assessment will be the basis for the safety plan that is to be created to tackle surfaced safety issues, and to monitor the efficiency of opted measures.

2 Occupational Safety Assessment

2.1 Risk

According to ISO 31000:2018 Risk Management Standard, risk is defined as an effect of uncertainty on objectives (ISO, 2018). Though, not all risks can be avoided, the occurrence and consequences can often be mitigated via chosen countermeasures. One side of risk management is to prevent harmful actions and incidents on business, the other side is that by managing risks the business could achieve something new in the process.

2.2 Asset

Asset is defined by Collins Dictionary as something or someone that helps the organization to be successful (Collins Dictionary, n.d.). Assets are something worth protecting for they provide value to the company; these include tangible and intangible assets. Machinery, personnel, and information are common tangible assets for most companies. Intangible assets are know-how the personnel have, company's reputation, to mention a couple. Depending on the area of business of the company, some assets can have higher priority over others. For this thesis, the focus will be on occupational safety, for this care company the client is the most prevalent asset, and Occupational Safety and Health Act (Finland 2002) requires the employer to take care of the employee's safety, in this case, client is the employee. In this type of business, the purchaser may not be the client itself, as the clients using the service are often employees or affiliates of the purchaser. In this thesis, client is referred as person who uses the service, not the purchaser of the service.

2.3 Safety & Security

For clarity reasons the difference between safety and security must be explained. In Finnish language safety and security share the same translation, without differentiating the meaning of it. Security is protection against an attack (Collins Dictionary, n.d.) often from adversary. Safety on the other hand is protection from involuntary events such as accidents (Collins Dictionary, n.d.). In this thesis only safety aspects are examined.

2.4 Safety plan

Business & Learning Resources defines a safety plan as document that identifies the physical and health hazards towards the working force (Business & Learning Resources, n.d.). The safety plan includes risks towards the people, how these risks are assessed, and how they are going to be mitigated or treated. Plans that are created for the first time often include a timeline where discovered threats are given specific timeframe to be handled. This thesis is primarily focused on occupational safety.

2.5 Occupational safety

Employer's responsibility is to take care of its personnel by keeping them safe from internal and external threats. It is required to design the workplace in a way that it is as safe and secure as possible by eliminating threats, and the people working there are physically and mentally suitable for the task, they have been properly introduced to the task they are assigned to. The workspace needs to be maintained and cleaned in order to eliminate health threatening issues. The evaluation of occupational health should be a continuous task, to improve overall efficiency of the personnel and the company. Personnel must be given protective equipment by the employer, if their task requires it, and possible defects or threats should be reported, and they should be solved or mitigated as soon as possible. Any equipment used in the process needs to be maintained and serviced in a timely manner (Occupational Safety and Health Act 2002).

3 Framework

3.1 ISO 31000:2018 Risk management standard

In this thesis the main concept used for risk assessment is ISO 31000:2018 Risk management standard (Figure 1.), which is globally accepted standard for risk management (Silva Rampini, Takia, & Berssaneti, 2019) to help simplifying the risk management process by creating a universal set of evaluation criteria, universal risk management process, universal vocabulary, and follow-up steps for implementing the standard. ISO 31000:2018 promotes the involvement of top management undertaking the risk management in the organization. The top management should be involved in phase of the risk management process. ISO 31000:2018 suggests risk management to be part of organization's structure, objectives and activities (ISO, 2018). ISO 31000:2018 promotes the importance of creating value in risk management. Security is often seen as an expense because it does not directly give profit the organization.

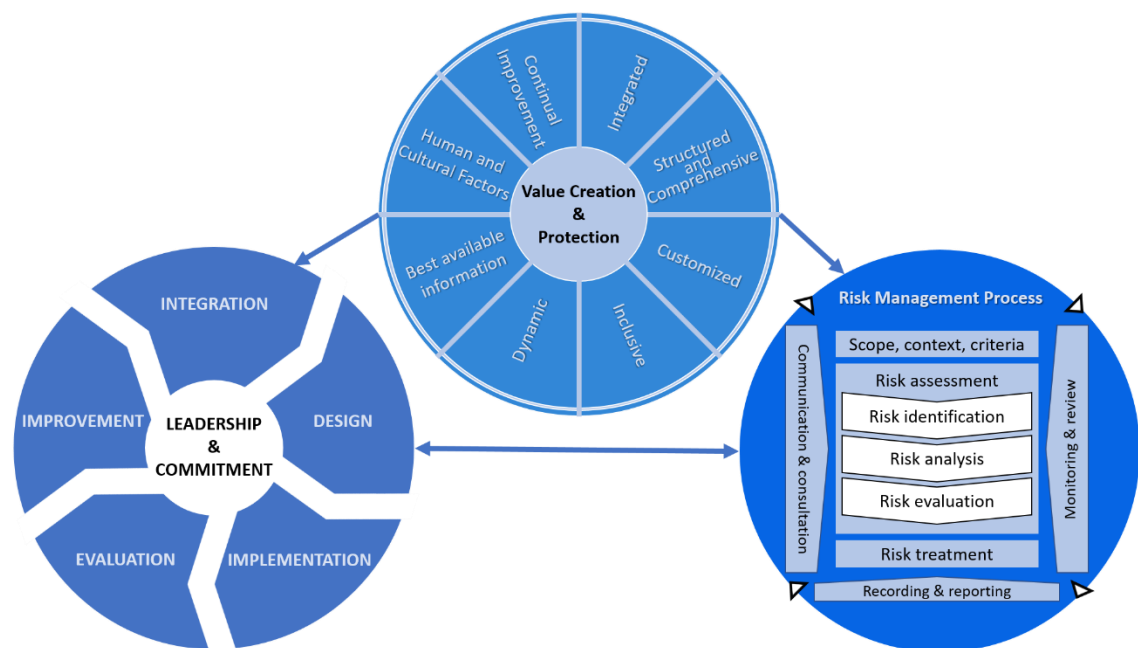


Figure 1. ISO 31000:2018 Risk management standard (ISO, 2018)

ISO 31000:2018 Risk Management Process has five steps; First, establishing the context to work with, this can be explained as a client and to work within its area of operations This is very important issue to be defined, as it limits the risk management process to a specific area making it more efficient (ISO, 2018. Ch. 6 section 3). Second, identifying the risks threatening the operations, some threats occur in most areas of operations, but it is important to discover

the threats that are specifically affecting these operations (ISO, 2018. Ch.6 section 4). These discovered risks should be recorded in some way, so that there will be documentation of the process to see what has been discovered (ISO, 2018. Ch. 6 section 7). Third, is to analyze the discovered risks and examine the likelihood of the risk to occur and the consequences it has, also to establish how the occurrence affects in the bigger picture (ISO, 2018. Ch.6 section 4), not only in their own operative environment. Fourth, evaluation of the risks is about making decisions based on the risk analysis, prioritizing the risks based on likelihood of occurrence and the consequences of the event based on predetermined risk evaluation criteria (ISO, 2018. Ch.6 section 4). Steps two to four combined, are the risk assessment process.

Fifth step is the risk treatment, this is the step that takes action towards resolving the risk, by selecting appropriate measures to tackle the risk. The selection process is more than dealing with the risk based on cost-efficiency analysis, it also needs to take into consideration the legal obligations company has and the views of other interested parties (ISO, 2018. Ch. 6 section 5). After the implementation of the measures the risk management process continues in monitoring and reviewing the effectiveness of chosen measures (ISO, 2018. Ch. 6 section 6). Continuous monitoring and reviewing of the risk assessment documentation and the risks allows the risk management process to ascertain whether the effectiveness of implemented measures are on par with the target level or not (ISO, 2018. Ch. 6 section 6).

4 Data collection

Information is gathered in multiple ways in this case by interviewing and literature review (which primarily provides the security requirements that needs to be met), to map the starting situation. The requirements will define further the extent of the security measures that needs to be taken. Mapping the starting situation, and establishing the target situation, helps greatly for it reveals the gap between those situations that must be covered.

4.1 Literature review

Literature review is a common way of gathering information at the start of research (Saunders, 2015), for it requires very little resources, and it is affordable as well. It is used to start the task by searching background information (Saunders, 2015). With literature review you have large pool of data, and often the information that is required for the research is much more specific. The goal of literature review is to show how this very specific research is connected to other similar areas (Oliver, 2012). Literature review tapers the information from general level to more specific.

4.1.1 Animal Welfare Act

Animal Welfare Act (Finland 1996) sets the legal requirements for animal protection in Finland, in this thesis it defines the area of operation of the care company, for the service will mainly take part in a dairy farm milieu, both inside and outside of the animal shed. The main objective of the act is to guarantee the well-being and proper treatment of animals regardless whether they are domesticated or wild species. It requires that the proprietor of the agricultural must have sufficient professional knowledge on taking care of the animal(s) it owns and act accordingly to the set Act. Animal Welfare Decree (Finland 1996) defines the physical requirements for the animal shed and pasturing of the animals in more detail than the Animal Welfare Act (Finland 1996) and is this thesis the requirements for the shed has importance from the social services point of view. As the animals have a rehabilitative role in the service, their well-being must not be at risk any time during the service.

4.1.2 Act on Social Services Professionals

Act on Social Services Professionals, in Finnish; Laki sosiaalihuollon ammattihenkilöistä (Finland 2015) gives the legal requirements and the objectives for social services professionals to provide good quality social services and treatment. These requirements include sufficient education, the ability to uphold and develop their profession, and promoting cooperation between social services professionals. In this legal text there is the professional ethics requirements, that strives for promoting social performance, equality, and

participation, in addition to reducing social exclusion and increasing the well-being (Finland 2015. Ch. 4). This legal text alongside Animal Welfare Act and Occupational Safety and Health Act set very good context what service specific requirements needs to be taken under examination. As the service is a supporting service for social services, in this case the service provider is a social service professional and this act is applicable to her, though her primary occupation is a farmer. Act on Social Services Professionals (Finland 2015) and Occupational Safety and Health Act (Finland 2002) are both applicable, as she employs the clients and is a social service professional.

4.1.3 Finnish Food Authority

Finnish Food Authority looks agricultural safety from animal health, animal diseases and animal well-being perspective, providing information how to prevent and monitor diseases, and promote the well-being of cattle (Finnish Food Authority, 2018), and they examine and monitors food safety in Finland (Finnish Food Authority, 2019). For the dairy farm is obligated to follow set rules and regulations in order to stay operative legitimately.

The aforementioned legal texts and authority requirements are essential to be covered for the service will be conducted in a place that houses livestock, in this case cows and calves, and their needs must be taken care of during the social services provided in their presence. The Animal Welfare Act (Finland 1996 Ch. 1 section. 1) requires the promotion of animal well-being and treatment, so the social services must be tailored to operate in a way that do not hinder the fulfillment of legal requirements. Finnish Food Authority sets more specific criteria in dairy farm as their product for food industry must meet set requirements.

This social service operates as a daytime activity alongside the proprietor's primary occupation, dairy farmer, so animal welfare and human healthcare requirements must be met so the social services can operate on the farm. Proper cleanliness must be upheld during the primary occupational activity and during the provided service, so the welfare of the animals and personnel is taken care of. The easiest example is cleaning the work boots before entering feeding area after being in the area in which includes manure, this to keep the food clean and to prevent diseases from spreading among the animals and personnel. In addition to legal requirements there often are other demands created by agreements between the service provider and client groups, for the clients differ in their backgrounds and needs.

4.2 Interview

Merriam-Webster defines interviewing as talking with someone to get information (Merriam-Webster, n.d.), discussing with the interviewee it is possible to go deeper into the gathered information by asking to clarify or further explain the topic at hand. Interview holds great advantage to the interviewer, for unclear information can be asked to be clarified or explained further on the spot, compared to other information gathering techniques such as questionnaires, which often only answer the question they hold, but rarely explain the reason behind the question, in an interview this can be avoided by asking follow-up questions, as well as discussing other aspired topics which otherwise would have been uncovered (Gillham, 2005). The possible coverage of issues may be the biggest benefit of this information gathering method compared to others.

Face-to-face interviews are events when the interviewer and interviewee are discussing the topic in same location, this method can be opted when sensitive topic is under discussion, as it can feel more confidential, however, distant interviewing, which is the other option, can give more open answers as the respondent can submit the answers ‘anonymously’ distancing themselves from the sensitivity of the topic (Gillham, 2005). In face-to-face interview topics under discussion often aims at qualitative information, as it is harder to receive from distant interview.

The plan is to interview face-to-face with the company owner to receive the most accurate starting point for the assessment, for she knows the situation and what must be accomplished. Should the company employ more than one person, it could prove to be useful to involve others into the risk assessment process, this limits the possibility of some risks to be overlooked.

The interview aims to gather qualitative information from the respondent about the situation. The questions in the interview will be semi-structured, so the questions asked during the interview will lead to other questions that are not in the agenda in the beginning, this allows the interview to evolve. Questions for the interview will be based on the legislative requirements, and the follow-up questions based on given answers during the interview.

Questions for the interview will be the following:

1. What kind of activity sectors are included in the service?
2. What kind of activities are included in these sectors?
3. What are the most prominent activities?

The questions are purposefully formulated to be open-ended, so the answers can be found through the thinking instead of choosing from predetermined pool of answers. The questions will be asked in the order that goes from general to specific, so the process can be as thorough as possible limiting the possibility of overlooking some risks. Service provider will be part of every step in the risk assessment process, so the process itself will become familiar, and to enable further developments in risk assessment process without using external help every issue that should arise. The interviewee is given written version of questions with plenty of room to make notes and record the answers, as it helps to remember the previous thought process because this interview will be held in two sessions.

Literature review and interview are chosen as research methods for this thesis because literature review gives the general view of what kinds of risks can be expected of this type of service in this operating environment. Interview is to take the next step deeper so the assessment can be made as specific to this service.

5 Occupational Safety Assessment process

5.1 Risk identification

The risk assessment interview was successfully conducted face-to-face in two parts: 26.12.2020 and 28.12.2020 and it followed the ISO 31000 Risk Management process (Figure 2). First part started with an interview with the client on 26.12.2020 which lasted around 90 minutes. Then we established the specific context for the assessment and what kinds of issues needed to be considered.

As a social service provider in agricultural setting, we needed to comply with the basic regulations from social and healthcare legislation, (Act on Social Services professionals 2015), Animal Welfare Act (Finland 1996) focusing the well-being of the animal, Finnish Food Authority regulations focusing on food production safety, and Occupational safety and Health Act (Finland 2002) to comply with the employment safety regulations. The interview started with the establishment of operational sectors the service includes, these sectors were found: Protection, Animals, Cleanliness, Feeding, and General risks. All of these sectors focus solely on operational risks present to the clients during the service, as the service provider is responsible for the well-being of the clients.

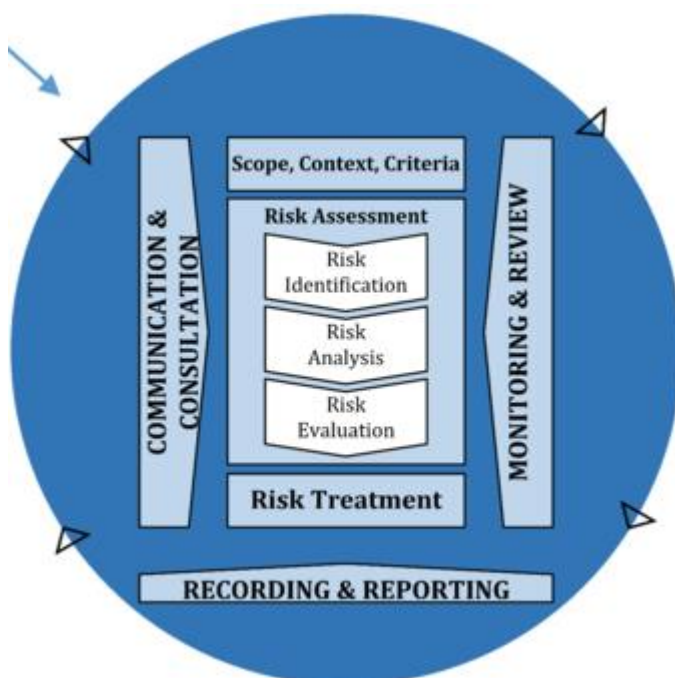


Figure 2: ISO 31000:2018 Risk Management process (ISO, 2018)

After discovering these sectors each of them was carefully examined step-by-step examined from arrival to departure of the client by recording them into a risk assessment table (Figure 3). This way we created a timeline of operations which helped to clarify the individual processes in the service and to categorize these individual processes to respective sectors. Each sector created their own risk assessment table to further clarify the documentation, instead of every risk to be recorded one after another in no particular order.

Risk ID	Risk Description	Consequences	P	I	M	Measure Description	Owner	Schedule

Figure 3: Risk assessment table

Found risks were then inserted into an assessment table (Figure 3). The assessment table used in this process included the following components: Risk ID (reference number given to each risk) this helps to sort out and categorize each risk in the table, Description of the Risk, Consequences, P (probability for the risk to occur), I (the impact the risk has), M (risk magnitude, calculated by multiplying Probability with Impact), Description of Countermeasures, Ownership of the Risk, and Schedule for dealing with the risk. This table helped to identify the most threatening risks based on the calculation of probability and impact and made it clearer to see what risks required the most immediate actions. The risk assessment table was divided into different sectors based on discovered operative sectors of the service. Discovered risks were assigned under respective sector.

Protection covers the personal protection of the client but also the health of the animals in the farm. When people coming outside of the farms mundane occupants come inside the animal shed it is very important to limit possible contamination that comes outside of the farm. Each individual should know the possible health issues they can experience in this environment so they can be prepared beforehand.

Because the service takes place in a dairy farm the animal aspect is essential to be noted, as they play a significant role in the service. In worst case, insufficiently instructed client can cause irreversible damage both to themselves and to the animals. This service being only a part-time occupation alongside the dairy farming being the primary occupation, it is imperative that the client and the animal cause no harm to each other or to themselves.

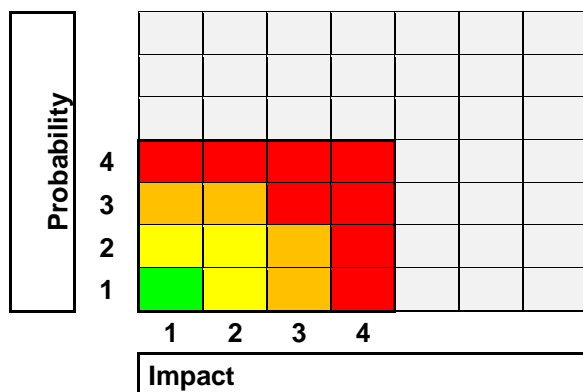
The cleanliness and general order cover the movement inside the shed and working equipment used in there, personnel must from time to time move near the animals to clean the excrement manually, this presents contamination problems if not conducted carefully.

Part of the service is taking care of that cows have sufficient food available. The primary food is transported by machinery with sharp claws, and it presents the possibility for major accident for the person and for the animal if not handled correctly. The shed has also automated food delivery system still some of the food needs to be delivered with manual tools and both present possible challenges of their own.

General category contains the risks that can occur in other similar working environment, such as ergonomic way of operating, and individual risk factors that vary from customer to customer.

5.2 Risk analysis

The second part of the interview took place 28.12.2020 and lasted also around 90 minutes. In this session each individual risk based on the consequences it has on the worker and on the animal was analyzed because both have essential role in conducting the service, so both aspects must be acknowledged. After examining the consequences, the risk was given a numeral value from 1 to 4 measuring the probability and impact based on predetermined criteria in Risk matrix (Figure 4.). Numerical value 1 indicating low level of probability or impact, and value 4 indicates critical impact and almost certain level of probability.



Probability scale	
4	Certain / Almost Certain
3	Probable
2	Possible
1	Unlikely

Impact scale	
4	Critical
3	Significant
2	Moderate
1	Insignificant / No impact

Figure 4: Risk Matrix

Risk matrix is a useful tool to measure risk magnitude by analyzing the probability for a risk to occur and the impact the risk has. The matrix provides visual presentation of the findings made in the risk assessment process (Julian Talbot, 2018). The matrix scales can be presented in a 2x2, 3x3, 4x4, 5x5 etc. sized tables. The tables can be modified to fit the assessment criteria of the situation on hand. This table helped to identify the most threatening risks based on the calculation of probability and impact and made it clearer to see what risks required the most immediate actions.

Risk matrix scale value range for this process was selected to be from 1 to 4. This eliminated the possibility to choose the middle alternative putting more thought to assess the probability and the impact of each risk. The risk magnitude provided by the calculation of probability and impact is only a numeral value of the risk and every risk should be examined more thoroughly instead of just relying solely on the numeral value.

5.3 Risk evaluation

Risks were evaluated from two perspectives: economical and human perspective. The economical perspective examines the risks to lower the threat to the business as a whole, this is essential for without the dairy farm operating accordingly, the service business is unable to operate. The human perspective examines the operational risks that are present in everyday operations that are employed during the service. In risk evaluation phase, the decisions how to treat discovered risks were chosen.

6 Results

In this section is explained the findings of the interview, and the results are categorized and examined in their respective threat sectors to clarify the most threatening risks of each category and what actions to take in reducing either the probability or the impact, or in best case both.

The main objective for this service is the mental and physical rehabilitation of the client, so no one is forced to do anything they feel uncomfortable, they are offered to gradually accustomed to the operations conducted during the service helping the rehabilitation process. As the clients usually arrive in groups the tasks can be divided individually. In dividing the tasks, the physical and mental capabilities of each individual must be acknowledged, so the task is appropriate to the rehabilitation process and to reduce the likelihood of task-related risk to occur.

Literature review consisted of the ISO 31000:2018 Risks management standard, Animal Welfare Act (Finland 1996), Finnish Food Authority, and Act on Social Services Professionals (Finland 2015). Literature review was used to find the international tools to conduct risk assessment, and to find the legal requirement for the service so it is compliant with the legislation. I found it important that the company owner was heavily involved into the process as she gained awareness how to use the plan in the future.

Protection related risks consider the spreading of diseases to the farm by accident and personal protection for doing the tasks. Most severe threat by impact is the spread of a disease by an outside carrier who arrives to the premises with equipment that carries the disease, though the likelihood for this to happen is unlikely the consequences can be devastating.

In the farm, this threat is limited by offering working clothes that do not carry any outside bacteria other than what are present in the farm. These working clothes are not stored in same room as the clients' personal clothes, this is to create disease barrier in which the transfer of disease is stopped from entering the sensitive areas. These working clothes are also made from quality material that endure wear and tear to protect the client in their tasks. According to the interview the probability of serious outbreak is unlikely, but the impact will be critical, and based on the pre-set criteria the magnitude of the risk requires periodical monitoring to assess the development of the risk. The impact an outbreak can have towards the farm, is valid reason itself to create a safety plan.

For animal created risks almost all of them are rated as mediocre, as they are relatively easy to be avoided by proper guidance in operating with animals. Squeezing between animals or between an animal and wall presenting the greatest threat for an injury. Most of the time animals are connected to their individual booth, so the threat is limited, but as a part of the service the clients are in contact with unconnected animals. The free movement of animals is limited during the service if it presents significant threat to the clients. These limitations can be physiological such as rutting season of a single animal which causes other animals behave irrationally.

If the behaviour of animals is unpredictable prior to the service session, the service is modifiable to include other tasks instead of adamantly following predetermined service regimen. The probability of an accident is always possible, and interviewee explained that the physiological condition of the cows is assessed every day, and if it presents a threat the clients are not allowed to operate near free animals, as the unpredictability increases the possibility for an accident. Most common injury with loose animals are bruises, which is assessed to be a moderate impact on health, thus giving a mediocre risk rating.

The cleaning related risks are more severe towards the animals, so they are examined more as economical threat. As the clients move around the areas the animals defecate on and where their food is delivered, the proper cleanliness of shoes and the working equipment is paramount. One of the most known diseases that spread when manure mixes with food is salmonella, which causes fever, and diarrhea (Finnish Food Authority, 2019) jeopardizing the agricultural production in the farm. Cleanliness of the equipment and shoes are taken care of by using disinfecting solution and water to sanitize shoes and the working equipment.

For further development, additional working equipment is planned to be obtain and to colormark them to assign specific tool for a specific task. This is to eliminate the use of cleaning equipment in feeding, thus limiting the probability of dangerous bacteria ending in the food. This is not as serious when using the feeding equipment in cleaning as the food does not do anything in the manure, but vice versa it causes serious health issues to the animal, and further consequences to the entrepreneur.

Based on the interview, insanitary work equipment presents the biggest risk based on probability and impact, because these equipment are used every day, and the impact it has, in worst case scenario can result in death of a cow and death is always a critical impact. This creates a significant economical threat to the business, to address the issue a mitigating measure will be implemented.

Proper cleanliness of the working area reduces the slipping and tripping, as the condensed dirt, especially in the walking aisles cause serious close-by situations. These situations can escalate from slight slip into fright of animal which in turn can cause serious physical damage

to people operating around the animals. Outside the service time, the animals can freely move around the shed, and slippery aisles present threat to the animals as well. Solution to reduce the slipping was to pave the aisles with heavy-duty rubber mats, which are more comfortable to walk on and significantly easier to clean as the dirt will not stick to them as it does on concrete. Prior to paving the aisles, the slippage was possible, and the most common consequence was to reel back, but fractures are not unknown occurrence.

Feeding related risks produce the most threatening risks towards the clients based on probability and impact calculation. The feeding is done by mechanical tools such as pitchforks and skid steer loader. These present possibility for puncture related injuries, and the loader adds the possibility for squeezing between an object and the loader and careless use present an opportunity for accidents.

Before use the clients are instructed how to operate the tools and equipment to see how well prepared they are for the tasks, and those with accepted capabilities can be assigned to more advanced tasks such as operating the loader. Other clients are kept away from the immediate proximity of the loader to prevent accidents to happen. The working area is relatively large and the client groups small, so they can spread out, not being immediately prone to possible threats caused by others. As the probability for loader-related injuries is possible and the impact on persons and animals are significant, the risk rating grows to significant, thus preventative and reductive measures will be thought of.

General operating risks discovered working ergonomic issues regarding the client, poorly fitting work clothes cause limitations and restrictions in movement, and too heavy work equipment can cause physical injuries especially over time they cause wear in joints and tendons. Over short period of time these may not cause trouble, but over time it is possible to develop strain injuries. Provided working clothes vary in size and fit, so they did not require attention now, but the owner acknowledged the need for lighter and shorter working equipment. As the service is relatively short per session, clothing and equipment presents only a low priority risk, but risk, nonetheless.

Before the starting to work with the animals it is important for the service provider to know if any of the clients have any fears for the animals living in the farm. Fear can cause shock reaction on the client that may project on the animal making it behave irrationally, furthermore causing safety threats to people and other animals. Solution for it is to find alternative tasks to do if the client does not want to work with the animals, or they can start to gradually accustom the client to the animal if he or she chooses to try that. Because the nature of the service, the existing fears of the client should be known, so the rehabilitative process can start, otherwise there may come personal setbacks moving the client further away from rehabilitation.

7 Conclusion

The purpose of this thesis was to create a risk assessment for nature-assisted service operating in a dairy farm from a social service perspective. The result of this process was an occupational safety plan containing discovered risks currently present during the service. The plan was created into a spreadsheet (Figure 5.) allowing easy access and modifiability for future. The plan contains the discovered risks, each risk analysed individually from economical and human perspective, how these risks affect the service, and the chosen measures to handle them.

After mapping the discovered risks, it became apparent, the new measures needed were comparatively cheap to implement, as most of the risks were already addressed properly and there was no need to create expensive measures to reduce threats the risks opposed, only small enhancements to existing measures and procedures. The next steps are going to be implementing these opted measures into daily operations and timely revision of the risks, procedures, and safety plan.

The interview was conducted in close interaction with the company owner, this enabled immediate follow-up up questions for issues that arise during the interview. Resulting safety plan works as a base document for future safety issues regarding company's likely expansion process.

Risk Identification				Risk Analysis		Risk Evaluation			Risk Treatment		
Risk ID	Risk Category	Risk (Name)	Risk Description	Probability	Impact	Risk Magnitude	Need for measures	Measure suggestions	Measure description	Owner of the Risk	Timeline / Deadline
1_SEL										N.N.	
1.1_SEL	3 Economical	Protection	Disease spreading to farm	Pathogen is brought to farm in unsanitary clothing, footwear.	Unlikely	Critical	Noticeable Risk	No Risk	Monitor the development of the risk	Creation of disease barrier	N.N.
1.2_SEL	2 Operational	Sticking incidents	Long hair, loose apparel sticking animal, machinery	Unlikely	Critical	Noticeable Risk	No Risk	Monitor the development of the risk	Loose hair and apparel must be covered or otherwise contained	N.N.	

Figure 5. Safety plan spreadsheet

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