Power Discourses of Fish Death: Case of Linnunsuo Peat Production

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Abstract This article explores the peat production impacts on Jukajoki river in Finland by implementing discourse analysis. Four discourses are explored: state truth statements; company statements that are in close proximity of state power; discourses provided by the local community Selkie, who provided counter-narratives to the official views; and finally media and related discourses. In conclusion, the discourses by the state and closely related actors (A–B) comprised implementation of their power and justifying it at the expense of those who are excluded from such power, in this case the village. The village narrative (C) contains elements that strongly contradict the statements provided by those with power. The results indicate local communities should be taken more seriously. The systematic denial of local peoples' rights should be reviewed, and local participation in environmental permit assessments implemented.

Keywords Peat production · Fish death · Discourse analysis · Jukajoki · North Karelia · Finland · Local knowledge

INTRODUCTION

The inquiry explores the period from July 2010 to September 2012, during which fish deaths occurred on river Jukajoki in the village of Selkie, Kontiolahti, North Karelia, Finland. In July 2010, subsistence fishermen first observed dead fish floating on the water. Organic matter and lowered water quality were further noted. They informed the village of Selkie who reported the findings to the environmental authorities at the local the Center of Economic Development, Transport and the Environment (ELY-keskus/CEDTE), who determined the discharges

from the VAPO state energy company's peat production site to be lethal.¹ The media was also a part of these discussions.

The environmental permits to discharge remained despite protests from the village. The company indicated it would seek to solve the problem, but in June 2011 fish deaths were repeated. The same fishermen made these observations. The village notified both the CEDTE and the police. Again the media presence was large. This led VAPO to close the Linnunsuo site. In 2011, state authorities and police ruled on the events caused by peat production. This process then culminated in a new environmental permit to discharge being issued for VAPO by the Regional State Administrative Agency (Aluehallintovirasto/RAA) in August 2012.

MATERIALS AND METHODS

This article describes different knowledges in the context of Finnish peat production and its relationship with a *kylä* (village). The author is the head of Selkie, so the paper contains auto-ethnographical methodology.²

Discourses and the relationships with social and state power (Nevalainen 2004) produce varying truth sentences with regard to peat production in Finland. This was explored with *governmentality* (Ettlinger 2011) and how *normality* is embedded in these discourses. State actors,

¹ pH 2.77–3.4 and amount of iron 300 000 µg l⁻¹. Such amounts are lethal to all life in a waterbody.

² The choice of autoethnography as a method contains limitations and benefits compared for example with participant observation. Insider view embedded in it can be criticized from the viewpoint of a biased interpretation. I am aware of these risks and have tried to balance this with the use of discourses reflected in official documents.

relying on *expert knowledge*, operate on governance; i.e., of nature, production systems, or discharges using *normalized discourses*. They produce truth statements which reinforce established power and control. Such embedded, established practices dismiss, for the most part, the possibility of *ungovernable situations* or alternate knowledge production.³

Beck (1999) identifies this *risk*, which is associated with actors close to state power. He argues that *risks* are an all-encompassing part of life and a paradigmatic feature about the future thinking of such actors. Therefore, the state authorities prepare for the *risks* they perceive using *governmentality* (Ettlinger 2011; see also Pynnöniemi 2012), which produces the *normality* of their discourses. An event, such as the fish death, which lies outside this governance and normality enjoys a markedly different positioning in the truth statements of such actors.

Nevalainen (2004) reminds that discourse analysis cannot be separated from its inter-textual context. In other words, it means that different truth statements need to be read in a relationship with each other to achieve an analytical result. Such a view on power emerges when the hierarchical elements—in relation to formal, established power—of different actors are made visible (ibid.). Nevalainen (2004) stresses that while a discourse can be positioned clearly in the power matrix of a given context, some spill over and can be attached to several discursive texts simultaneously. Distances in this matrix relate to state⁴ power. In other words as is the case in the Jukajoki events, some discourses portray a clear link and association with their relationship with formal power. Others are harder to position, as they vary and shift in their locations in the power matrix.

It is an inquiry into “diffuse power” (Ettlinger 2011) where the institution is at the same time a collective of individuals as well as the structure through which governance manifests itself. In the case of Jukajoki and peat production the focus will be on:

- A. Discourses of the state and its actors;
- B. Discourses of actors which are close to the state structures or enjoy a positioning near them;
- C. Discourses of village on the local level;
- D. Other discourses, such as media.

Discourses are juxtaposed with empirical materials from the events in Selkie. Those embedded in the village reality consist of resident oral histories (Mustonen 2012b) and *local environmental knowledge* (Berkes 1999). The time-spaces of Selkie contain elements of non-Euclidean views

of reality (Ettlinger 2011) that differ from the structure view of production sites, surveyed zones of peat production, and governing based on demarcation. Such views may include experience-based events, dreams, belief-based occurrences, and other issues which do not fit easily into a rational and measured world.

Science-based actors produce discourses of expert knowledge often embedded in and legitimized by the state apparatus. However, individual scientists may hold different and competing worldviews, so the link is not always clear. These discourses are often in conflict with the local knowledge (LK), which can fragment the sense of reality for these agencies. Instead of being able to act on the events that occur, these systems often fail to recognize and more importantly, to prevent, severe ecosystem damage (Mustonen 2012a).

Governmentality is intimately related to how we understand and produce space (ibid. 2011). In the non-Euclidean context of LK, space can appear to be folded and relational. It thus is likely to enter into a contested relationship with those whose time-spaces are embedded with rationality. For the system of power it is important to normalize the situation as quickly as possible—in other words to return to governance.

Empirical materials have demonstrated a breakdown of the governmentality and control-structure built on management of peat production. It manifests the *risk* Beck (1999) warns us about. A century ago, Husserl (2011) argued that the Western science had lost its bearings: “Fact science produces only fact people.” The spiritual-cosmological dimensions were missing. However, Husserl also said that humanities could be renewed (2011; see also Miettinen 2012), ever-evolving with meta-levels not bound to the crises of the day. Husserl (2011) argued for a radical self-reflection of sciences in order to come to terms with these crises. While his criticism may not be fair to all science, the philosophical need for a rethink is crucial in the context of the positions of power that science knowledge now has.

Foucault (2005) explores the structures of knowledge. Philosophy, literature, and social sciences are able to spot discontinuities and breaks in tradition as opposed to proper History which positions the past as a balanced system that erodes occurring events and their roles in the discourses of past and reality. Foucault (2005) urges us to question the *document* as a source of truth and the past; rather he offers a call to arms to liberate humanity from the yoke of collective memories and pasts. Central to the Foucault’s (1990, 2005, 2010) explorations was power. He too held resistance to established time-space concepts. The art of geography culminates in an archipelago (Ettlinger 2011), referred to as a “carceral archipelago, the way in which a form of punitive system is physically dispersed yet at the

³ Such as local ecological knowledge (Berkes 1999).

⁴ State power here signifies actors which are in close proximity of formal, established structures of governance.

same time covers the entirety of a society” (ibid.). Power is linked to order, the need-wish to control “uncertainty,” in this case a marshland-mire (Tanskanen 2000) in its “natural state,” and transform it into a system of industrialized production.

If the state-VAPO with its command-controls imposed on watersheds meets with the non-Euclidean life-worlds of subsistence fishermen who harmonize their activities with the rhythms of bream with its three-cycled spawning location-times, such an encounter can only be asymmetrical in nature in terms of power. It is “disciplinary power” (Ettlinger 2011) where only one future context is forced on those who are the targets.

Yet scale matters (Ettlinger 2011). A discourse needs to be analyzed in close proximity to its geographical occurrence, combined with the need to question any ready-made models of continuities, together with the need to disturb the peace and certainty on which they are approved (Foucault 2005). It makes sense to investigate an event *from where it happens*, in this case Jukajoki.

Lehtinen (2011) argues that Foucault interpreted Husserl’s views emphasizing language and discourse. Discursive practices were positioned as central nodes of inquiry. Truth statements can open up structures of power. For Husserl (2011), despite the problems that science had it was still important to frame it in the continuing tradition of Western thought. Foucault (2005; Lehtinen 2011) was more interested in differences, discontinuities, and dispersals of knowledge systems. There was an urgent need for liberation from the great historical-transcendental destiny of the modernized West (ibid.).

LK in Finland is filled with these discontinuities. The reason for this is partly that Finns do not possess a cohesive mythological-cosmological view (Berkes 1999; Mustonen 2009; Mustonen 2013). Traditional ecological knowledge (Berkes 1999) is seen as all-encompassing term that both are a source of socio-ecological information and a new interpretative tool for environmental change. In the discontinued traditions of Finland, a more proper term is LK, here referring to the knowledge of individuals who are inhabiting sites of change and who have capacities for observation and interpretation.⁵ However, LK is not limited to technical observations of birds, fish, landscapes, mires. Individuals who have inhabited from pre-industrial eras and/or are still involved in subsistence activities, such as berry-picking, fishing, hunting, mushroom-gathering, and other wild practices continue to possess deeper readings of place. Luotonen (2006) provides a groundbreaking reading

of a coastal Finnish LK of Selkämeri region as a “lived landscape.”

LK shows the multi-scalar, nonlinear rooted LK that still exists in Selkie. The village (Selkien kyläyhdistys 2004) expressed this: “The past has been passed on to these times so that tradition has broken and made whole again in renewed cycles...If we destroy cultural heritage bound to a place and time we are also wrecking our memory.” Here, it is acknowledged that the changes of the past have caused breaks in LK systems. However, the preservation of important natural and cultural places can help renewal from which both new knowledge and links to a “broken past” may emerge. This is relevant due to its nonlinear potentiality—knowledge can therefore come back.

The differences between LK and living oral history (OR) can be summarized. OR are communal exercises, where peoples themselves provide a matrix of knowledge of multi-dimensionality—this leads to an authentic representation of community epistemologies as opposed to “anecdotes.” Such OR by the communities is largely missing from ecological assessments. Lost and emerging OR in Jukajoki provides an exciting case of what Foucault (Lehtinen 2011) identified as discontinuities and great historical-transcendentality of the West.

Peat production is suited to Finland where large amounts of post-glacial wetlands are found (Wahlström et al. 1996). A marshland or mire is defined as a wetland ecosystem where organic materials are layered into peat through natural process (ibid.). According to Tanskanen (2000), mires covered 10.2 million ha prior to draining in 1940s. In 1900s, 6 million ha were drained for forestry. In North Karelia, there were approximately 550 000 ha of mires prior to drainage; today 530 000 ha are affected by drainage. Finland is the largest peat producer in the world. Subarctic and boreal wetlands, including peat lands, are carbon sinks and influence both the local climate and the weather and contribute to the global climate. They maintain specialized species and are hotspots of biodiversity.

Tanskanen (2000; see also Rannikko and Schuurman 1997) sees that use of mires has five main periods. These include early eighteenth century (great expectations), beginning of twentieth century (small-farm system), war time (1939–1944 hunger for land), mid-1960s (rural depopulation), and late 1990s (EU Agriculture). The new wave of state-backed drainage and ditch-construction began in 1950s, also on private lands with tens of thousands of hectares annually being affected (Tanskanen 2000). In the 1980s (Vesajoki and Pihlatie 2011), Linnunsuo⁶ mire was taken into large-scale peat production by the state company VAPO. While capercaillie (black grouse) still visit, only the name reminds that there used to

⁵ Space does not allow here to discuss the rural–urban divide or residence of Finns in the context of local knowledge. Focus here is on people living in close proximity of natural habitats.

⁶ Linnunsuo = mire of the bird.

be a mire that was also an important hunting area. The toponym has lost its meaning (Selkien kyläyhdistys 2004). Willow ptarmigans lingered on until 1980s. The connecting watershed of Pielisjoki is further under human-induced changes, including the hydroelectric station at Kuurna (Selkien kyläyhdistys 2004).

A variety of events in 1950s–1990s institutionalized encouraged the drainage of mires. It became the norm in the discourse of how the marshlands were considered. This is a major deviation from Sweden or Norway (Wahlström et al. 1996). Positioning this case with Estonia as a Post-Soviet space (Oru and Oru 2008) and using comparative domestic cases (such as the recent Talvivaara mining catastrophe and older issues of northern hydropower) (Engineering and Mining Journal 2010; Mustonen et al. 2010) a trend which emerges hints at a longstanding neglect by local communities in state-driven natural resources and energy production. Only expert knowledge has been, to large extent, considered “valid.” Whether this can be viewed as a systematic or intentional is yet to be seen. Using discourses regarding peat production we can open a new line of inquiry. Of relevance is who is speaking; who has the right to speak; what implications does a speech have; and finally, what are the specific speech acts.

Specific LK enters into an epistemological conflict with Expert Knowledge embedded in generality-normality. The established truth statements had evolved since the 1950s to produce a discourse of normality (Wahlström et al. 1996) regarding drainage of mires. Such an act was done by experts: if local people did the physical work, the planning was blessed using Expert Knowledge from “above”/state (ibid.). Using Foucault’s (2005) discontinuities, a major break is the cessation of the life of the mire and all the biodiversity it contained. Drainage alters irrevocably the ecosystem into a human-created zone of “normality,” controlled, monitored, and governed by experts. Drainage with the state power (Foucault 1990) backing it embeds this new reality and imposingly grounds it to the landscape. Speech acts that justify the grounding rest on the needs of the modern-governed.

RESULTS

The Jukajoki peat production discourses have been assessed into four categories. This reflects the relationship with formal power invested in the state and its organizations. The state through its agents (Center of Economic Development, Transport and the Environment—CEDTE and Regional State Administrative Agency—RAA) controls peat production in Finland. The timeframe is from July 2010 to September 2012.

These categories reflect positions to established governance of the state, with A—being strongest in expression of such a power, and C being the weakest. Category D has a varying substance in relationship to power—media and other statements come both from public/state and private media sources:

- A. Discourses of state and its actors, such CEDTE, RAA: Official legal statements given by the state bodies complemented with supplementary unofficial materials given to the village 2010–2012 and statements from the police.
- B. Discourses of actors who are close to the state or positioned near the power structure, such as VAPO: Official legal statements and communication between the company and Selkie.
- C. Discourses of actors removed from power and hierarchy: Official complaints by the village, oral histories, media appearances, and auto-ethnographic and participant observation materials.
- D. Other discourses: The state company YLE and the private newspaper Karjalainen with additional materials from politicians.

In order to practice peat production, a company needs to have a valid environmental permit. The VAPO Company peat production site “Linnunsuo—Lohko 2” received its permit in 2003 from the Agency of Environmental Permits (Agency for Environmental Permits for Eastern Finland 2003). This agency was discontinued in 2009 and two new agencies were instead created: the CEDTE and RAA. Out of these, the CEDTE is supposed to provide the environmental monitoring process and the RAA provides permits for peat production.

In 2003, the village people had addressed the peat production in the following statements (Agency for Environmental Permits for Eastern Finland 2003):

C1-2003: “River has grown shallower due to peat production and the discharge of organic matter from the site. Environmental officials should monitor the water quality more effectively.”

C2-2003: “Financial compensations are needed. The company needs to clean the organic matter from the bottom of the river. Fish have disappeared.”

C3-2003: “Company has to clean the organic matters from the river. Peat production affects the fishery.”

People identified that the peat production has started to significantly change the water quality and structure of the river. Fish quantity, fishery, and other uses of the river have been affected. The company was asked to take immediate action to address the situation. The company had to address these comments. It provided these answers (Agency for Environmental Permits for Eastern Finland 2003):

B1-2003: “VAPO has a ISO-approved environmental management system. The company is using Best Available Technology, and therefore the impacts from prior times will diminish. Impacts to fish in downstream watershed will not be significant (sic). Monitoring has been started in 2000...Application for the permit has been written in the same manner as all other such processes...These established norms cannot be deviated from based on observations, experiences and perceptions...demands [C1-2003] should be dismissed. Financial compensations [C2-2003] should be dismissed as irrelevant.”

The company identified use of monitoring for environmental quality and due to this there will be little impacts. As the permit process is the same nationally there is no point to change the procedure due to local concerns. Local complaints should be dismissed in their entirety.

The state bodies (Agency for Environmental Permits for Eastern Finland 2003) Agency of Environmental Permits and Center for the Environment constituted the state discourses for the application. The Agency provided the permit and the Center was consulted on environmental impacts. The Center stated:

Discourse A1-2003: “The technologies for the watershed should be improved on the peat production site...However there is no need for a Environmental Impact Assessment.”

The Agency of Environmental Permits provided the permit 30th September 2003. In its statement, the Agency said:

Discourse A2-2003: “The Agency provides the permit to conduct peat production on the Linnunsuo site. Deviations and emergency situations deriving from peat production will have to be reported. Reasons and causes of such emergencies have to be removed at once and impacts addressed without delay...Demands of the local people [in C1-3-2003 above] are dismissed as impacts to the river have resulted from overall state of the river and the impacts from the peat production are not significant.”

The Center identified improvement needs and the agency provided the license for operation. The agency addressed the company to notify environmental bodies in case of an unexpected emergency and to remove the cause of such an event immediately. Most importantly, all concerns, observations, and needs of the local people were dismissed. State actors sided with the truth statements from the company, and sought solutions based on scientific monitoring. Observations based on LK (C-discourses) were completely disregarded both by the state bodies (A-discourse) and the company responses (B-discourse). This is a blatant

dismissal of the company's (VAPO 2012(b)) own research findings from 2003: “the first indications of sulfidic till could be seen in the water quality monitoring data from the early 2000s as the pH temporarily decreased to 3.1 but then returned to normal...”

In conclusion, the starting point for the 2010–2012 events flows from the 2003 permit where the LK was dismissed, nominal concerns were expressed by the state and the grantee authorities agreed with the company on the effectiveness of the environmental checks and balances in place.

In July 2010, a subsistence fisherman living in along Jukajoki (Fig. 1) observed four dead fish floating down the river (Snowchange Selkie Oral History Archive 220710). This observation was made 3 km from the production site. On July 18, 2010 more dead fish were seen and a large flock of seagulls flying along the river. Based on these observations the fisherman asked the village association, which represents the rights and issues of the community toward society, to report the event with the CEDTE:

C1-2010: “We ask you to look into the observed death of several fish and a flock of sea gulls along the river Jukajoki. We suspect the events are a result of a discharge from the Linnunsuo peat production site.” (Village Association of Selkie 26.7.2010)

Four months later, on Nov 15, 2010, the regional authorities responded:

A1-2010: “According to the village observations dead fish and lowering of water quality was observed. A possible cause for the event is suspected to be the Linnunsuo site according to the village. The CEDTE has sampled water quality 8th September 2010 and 30th September 2010...Waters flowing from the site are very acidic and filled with iron...This transformed the river lethal to fish and other life forms in the water.” (POKELY/469/07.00/2010, CEDTE 2010)

The company responded to the CEDTE on Nov 17, 2010:

B1-2010: “An usual natural condition with record rains has caused this phenomenon...Acidic waters are always clear and it is unknown where the reported dark organic matter has entered the stream...Chalk stone dams will be installed on the discharge ditches to control the problem.” (VAPO 17.11.2010)

From the first report, it took the environmental authorities 2 months to start monitoring the water quality. Their results were made public in mid-November. The report identified severe conditions for life in the river. The root cause of the problem had been drainage for peat production. The company responded in November but only to the authorities. The village was dismissed. The solutions proposed rested entirely on existing infrastructure.

Fig. 1 General map of Jukajoki watershed and the local communities in North Karelia, Finland

After CEDTE report was made public the fishermen decided to issue their own statement. The village tried to contact the company directly. The regional head of Linnunsuo site said by phone:

B2-2010: “There is nothing wrong with the peat production, there is no discharge...The dark matter floating on the river is just dead seasonal organic matter from birch trees” (Mustonen, personal communication).

After this dismissal the head of environmental operations of VAPO for Eastern Finland was reached on the phone. He said:

B2-2010: “The situation is under control. There is no need to contact the media.” (Mustonen, personal communication).

Present in these voices is the downplaying of the issue. The head of environmental service was concerned that the media should emphasize the discourse of “normality,” stressing that all was normal.

On Nov 17, 2010, the regional newspaper *Karjalainen* ran the front-page news:

D1-2010: “Jukajoki is dead. The problem seems to be the Linnunsuo peat production site. But according to CEDTE the environmental permit VAPO holds has not been breached...They said that: ‘When the permits were issued [in 2003] it was not known, nor it was possible to predict that something like this could ever happen...Tero Mustonen, head of the village of Selkie, said: ‘These problems have been repeating before too, but last summer they became more visible. We are talking about a major local environmental destruction, as Jukajoki river used to have spawning salmon still in 1940s. Mustonen believes the authorities would have not taken any action without the observations made by local people.’” (Karjalainen 2010).

The media coverage identified correctly the source of the discharge. This discourse represents category D, where blurring of various statements can be seen—the state bodies produce content, which repeats issues identified by

Beck (1999) on the unexpectedness of the current situation. This is in contrast with the LK from 2003 (C1-3: 2003), which identified the impacts to local fish. The village in the discourse D1-2010 also links past occurring and produce a context where a major local event has taken place. VAPO is silent in media.

Prominent politicians also reacted. A Member of the European Parliament, Satu Hassi, wrote on the same day:

D2-2010: “I have learned peat production killed fish in Kontiolahti...The strangest thing is that permits were valid. Therefore there must be something wrong with the way these permits are issued to peat production sites. Current process does not assess watersheds, only the single area peat production sites are surveyed.” (Hassi 2010)

Hassi identified the permit process as the fault line in peat production. She called for watershed-based assessments instead of a single-site approach. Being a member of the political elite she took the coverage and connected it with her own goals, one of which is the discontinuing of peat production in Finland.

The fishermen observed the fish deaths in 2010, but not the science-monitoring of the company or authorities. VAPO continued to contest local observations and demands and dismissed them. The authorities made statements saying that all such events could not have been foreseen, despite written observations made by the villagers back in 2003. Fish deaths fell into an administrative limbo for over 2 months since occurring. The peat production was allowed to continue with its permits intact despite causing the environmental health of the river to fall. However, local and national media picked the event up. This caused responses from European and national level politicians who linked the event to the larger problem that peat production and its permits have. While fish and other life under water lost their lives, they made a splash as they went.

In 2011, Selkie submitted applications to seek suspension of the VAPO permits. In June 2011, the fish deaths reoccurred despite monitoring and efforts taken by the company. They were observed again first by fishermen. This time VAPO suspended all activities indefinitely on the site and police were called to investigate. In January 2011, the Selkie village submitted an application to the RAA:

C1-2011: “We ask the Agency to ask VAPO compensate financially the damages caused by the 2010 fish deaths, repair the damage to the river and finally to suspend the permit of the company...by invoking forced administrative steps”⁷ (Village Association of Selkie 2011(a)).

⁷ An administrative concept referring to a process where authorities have to do all in their power to stop the threats or problems.

The village tried to see the end to the damages and ask also for the permit of VAPO to be re-assessed due to the impacts. The re-evaluation of the environmental permit was then due in early 2012.

On March 1, 2011, the RAA took unprecedented steps and phoned to the applicant (C1-2011) to suggest the application should be withdrawn. The specific case was made that:

A1-2011: “The permit will be re-assessed in any case in early 2012, there is no need to do it now and during this upcoming process the company will have to answer to these damages, there is no point to start evaluations right now. Village as an actor cannot apply for compensations, only private people can. The request to invoke forced administrative steps cannot be taken as they are to do with the CEDTE jurisdiction, not the RAA. We kindly suggest you will withdraw your application...” (Mustonen, personal communication)

RAA referred to the system being able to take care and assess the situation a year from the date with the new permit. The village cannot be an applicant in damage compensations in their interpretation and the forced administrative steps are beyond the capacity and jurisdiction of the Agency. Finally, the application was asked to be withdrawn and it was partially—the part of financial compensations was taken back as it became clear that they cannot be applied for. The agency discourse portrays also uneasiness of the issue and recommendations that such a difficult matter should be closed.

On March 8, 2011, the Agency issued the following statement:

A2-2011: “We transfer the request for forced administrative steps to the CEDTE.” (AVI 2011)

On April 20, 2011, VAPO issued a statement on the application of Selkie:

B1-2011: “VAPO requests that the application from Selkie is primarily dismissed and secondly will be denied...A village cannot be a complaining body in this case...The permit has not been broken and the issues can be solved using technical means...On average the discharges from the site of Linnunsuo are within the limits of the permit in 2003...” (VAPO 2011).

Truth sentences from the company identify that the village had no rights on the matter, that technical solutions would solve the problems, and that permits had not been broken. On May 23, 2011, the village issued a response:

C2-2011: “We ask the Agency to dismiss company claims, as the village represents the people affected by the process...the permit limits have been

broken...the problem is not occasional, it is a persistent problem as identified by the 2003 permit statements. We repeat our claims.” (Village Association of Selkie 2011(b))

On June 23, 2011, the regional newspaper ran a front-page news:

D1-2011: “Dead fish returned...Dead fish are floating again on river Jukajoki. Iron amounts are over $300,000 \mu\text{g l}^{-1}$. Criminal complaint has been made with the police and VAPO has discontinued production on Linnunsuo indefinitely within hours from receiving the...The company has not been in any contact with Selkie...” (Karjalainen 2011)

The media report stressed that what had happened mirrored events in 2010, and that the company had again made no contact with the village. The production site was closed for good on this day. On Sept 8, 2011, the RAA issued its decision to the application made by the village in January 2011 (C1-2011):

A3-2011: “The Agency will not consider investigating the requests from Selkie. Environmental permit stays in order. A village association does not have the legal rights to act as a representative of the affected individuals, because the association does not own land in the affected area. Therefore the village association of Selkie has not received any harm from the activities of VAPO and cannot ask changes to permits or ecological restoration...The permit will be re-assessed in due course in 2012” (AVI 2011).

Here, the power discourse is most visible in all the materials. The Agency dismisses all complaints by the local community on the fact that an association [the only representative body of a village in Finland] cannot represent due to lack of land ownership, and second the environmental permits will be re-assessed in 2012. This decision came after the second fish death in June 2011.

On Nov 3, 2011, the CEDTE provided a response to the Agency as it had requested the Center to take care of the forced administrative steps in March 2011:

A5-2011: “CEDTE dismisses the application by Selkie to invoke the forced administrative steps...Linnunsuo site has a valid environmental permit in order. The impacts of 2010 fish deaths could not have been predicted beforehand and therefore are an unexpected event. VAPO has taken steps needed to solve the problems. Therefore there is no need to implement the forced administrative steps.” (CEDTE 2011)

State agencies considered the situation, passed it from one to the next and in the end decided that a fish death does not

constitute an action where forced steps would have been needed. Second, VAPO had an environmental permit in place so there was no need for other action.

VAPO took unprecedented steps in February 2012. They stated:

B1-2012: “We have considered the opinions of Selkie in the matters of Linnunsuo site. We answer all questions you might have, all opinions and issues.” (VAPO 2012(a))

On February 2012, the police decided on the criminal complaint issued in June 2011 by Selkie:

A1-2012: “No crime has been committed. A police squad was dispatched on the site of fish deaths 22nd June 2011. No dead fish were observed at this hour. Police collected statements from the involved actors. Police determines that based on the evidence it is clear that nobody acted against the law or regulations [of an environmental permit] in a manner that would have caused environmental pollution” (Police 2012).

The State actor, in this case the police, did not consider that any violations had happened, as the environmental permit was valid from 2003. VAPO applied for a new permit in February 2012 for the Linnunsuo site. It had decided to create the largest wetland in Eastern Finland, over 120 ha on the suspended production site. The RAA issued the new permit on July 20, 2012 with the main points being:

A2-2012: “Permits can be continued on sites 1 and 3 of Linnunsuo. Permit is given to establish a wetland of 120 hectares on production site 2...New technologies need to be implemented on sites 1 and 3. The company needs to provide an ecological restoration plan for the lower part of river Jukajoki affected by peat production and needs to pay financial compensations to the Selkie village fish association.” (RAA 2012)

This decision continued VAPO permits for parts of the production site and ecological monitoring still rested on technological solutions. However, for the first time in Finnish environmental legislation, the Agency ruled that the company needs to provide a restoration plan for damages caused by peat production and provides financial compensation for the lost fish. The plan for the largest wetland area in Eastern Finland brought the process that began in 2010 with the first fish deaths to a close.

DISCUSSION

This article has explored the case of peat production along the river Jukajoki and the fish death events of 2010–2011 by implementing the discourse analysis apparatus

suggested by Foucault (2005, 2010) and hinted at with the crisis of modern sciences by Husserl (2011). Four different discourses have been explored: first, official statements; second, company statements that are in close proximity of state power; third, discourses provided by the local community of Selkie, who are far from official power but have tried to provide counter-narratives to the official views on the issues; and fourth, media and related discourses in which the different actors enmesh and meet in the discursive spaces of media.

In conclusion, the discourses provided by the state and closely related actors (A–B) were consisted in implementing their power and justifying it on the expense of those who are removed from such power, the village. The village narrative (C) contains elements of emphasizing fault lines and contradicting the truth statements provided by those with power. Non-Euclidean views (Ettlinger 2011) on time and space provide different discourses as the state actors to whom the former mire of Linnunsuo, which was turned into a peat production site, is seen as a linear space in time and in production schemes.

CONCLUSION

The state mechanisms, built on linearities of time and space, to control ecological impacts from the peat production failed to monitor severe ecosystem damage, which was on the other hand observed and acted on by the local fishermen. Past events in Finland (for example Mustonen et al. 2010) indicate this to be a structural problem with a long, established history. The results therefore indicate that the local communities and their ecological knowledge (Berkes 1999) should be taken more seriously. Local participation at the permit assessments should be strengthened, impacts of production, for example on a watershed or system level assessed and finally, the systematic denial of local peoples' rights should be reviewed extensively. On the other hand, this would threaten the core of the peat production regime in Finland based on expert knowledge, therefore constituting a threat to the monopoly of how water ecosystems are discussed. The research has implemented qualitative methodologies of auto-ethnography and OR which have allowed an insider view (Foucault 2005) on the process, but naturally has provided also biases toward the analytical results. This has been compensated by narrowing the research data to consist of official documents.

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