

6. ENVIRONMENTAL POLICY AND THE DECLINE OF ECONOMIC FUNDAMENTALS

The old wisdom says Finland makes its living from its forests and metal industries. Even with the meteoric ascendance of Finland's telecom industries led by Nokia over the past two decades, this is still true. Finland earns the bulk of its export income from companies operating or offering expertise related to the metals and forest branches.

Of course, the highly developed domestic economy also requires a rich assortment of goods and services. Non-industrial public and private sector activities dominate the economy in terms of gross national product (GDP). Industrial activity is nevertheless essential to sustaining Finland's high living standards as well as to funding public sector and pensions.

Respected economist and former US treasury secretary Robert Rubin /54/ has spoken on the threats on the dynamism of economy by the society's growing tendency to eliminate or minimize risk. Instead of making cost-benefit judgments of risk, the result is too often regulation, legislation and litigation outcomes whose costs in other areas greatly exceed the benefit of risk reduction. He considers this to be one of the major challenges facing the American society.

Industrial and productive activities involve environmental impacts. Most impacts are minor or insignificant, but in some cases they can be significant or even huge. To understand how new environmental legislation and its application affects macroeconomic activity, we first assess the economic bases for engaging in an industrial or productive activity.

Investment analysis – the starting point for new economic activity

Markets constantly evolve. Companies attempt to respond to changes in demand and increased competition by investing in advanced production technology or new production activities. Multi-level studies help identify promising investment targets. One typically starts by studying the business environment, trends and business potential. Conceptual or pre-feasibility studies are made of promising project ideas. If the preliminary study for a project shows particular promise, it is followed up with a feasibility study.

The central results of investment and risk analyses from the perspective of corporate management are summarized in Figure 6.1. The key points of interest to management in their decision on whether to go ahead with the project are the rate of return on investment (ROI) and the risks associated with the project. Also capital exposure and payback time are important.

Large corporations typically have several investment projects under development or consideration at a given moment. These studies are considered against the background of the overall corporate strategy. When the potential ROI is large, the corporation may be willing to take large risks. On the other hand, when the ROI looks to be modest, the management will not even consider a project with more than minor risks.

Risk can be divided into two classes: manageable risk and open (i.e. unmanageable) risk. Such risks as market risk, technical risks, currency risk, and scheduling risks can all be anticipated and managed up to certain limits.

The amount and nature of open risk often assumes a dominant role in investment decisions. For example, a political risk is an open risk. Consider Venezuela, where foreign oil companies are forced to surrender of their investments and operations to the national oil company. When such open risks have a significant potential of realization, it certainly affects the willingness to invest.

The potential of open risk realization has increased also in Europe in connection with industrial and other productive activities. Environmental issues are a common source, sometimes with merit but increasingly not.

From society's standpoint, investments in industrial and other productive activities are extremely beneficial. A decision to invest provides society at practically no risk with a new income stream and new jobs. Furthermore, there will be work for subcontractors and the service sector, as well as indirect tax income generated throughout society.

Finland like the rest of Western Europe has high costs, a relatively open economy, and generally low economic growth. Extremely profitable enterprises are rare. Companies operating on international markets can invest in Finland only as long as the business environment remains favorable, other operating conditions reasonable, and risks manageable.

Once Finland's active, rational, and efficient court system was a huge advantage in international competition. Now the country's new environmental policies, environmental legislation and administrative culture have changed this situation for the worse.

Permitting processes

Timing is critical to large companies as well as to small operators seeking business opportunities. Their hope is to meet emerging market demand by investing in a timely manner in new products and production capacity, and simultaneously phase out old facilities and mature product lines. Feasibility studies play a central role in restructuring of industrial and production organizations.

Feasibility studies for industrial projects are expensive propositions. Studies must consider many issues, including market and competitor analyses. A number of alternative production schemes are also usually studied first. Then process engineering, construction design, logistics planning, and operating plans have to be prepared for the selected scheme. Then one must scope the significant environmental impacts and try to find out the principal conditions that the environmental officials will impose on the project. A realistic implementation schedule must also be prepared for the project. Discussions with potential partners and memoranda of understanding are drafted at this time. Finally cost estimates, cash-flow and profitability projections, risk analyses, financing arrangements and the final viability analysis are performed. The process typically involves iteration rounds and back-up plans also.

From the standpoints of the project promoter and society, environmental issues are only one aspect of determining project feasibility. Yet their weight in investment decisions is often very large because they influence the overall project schedule and pose potentially large risks.

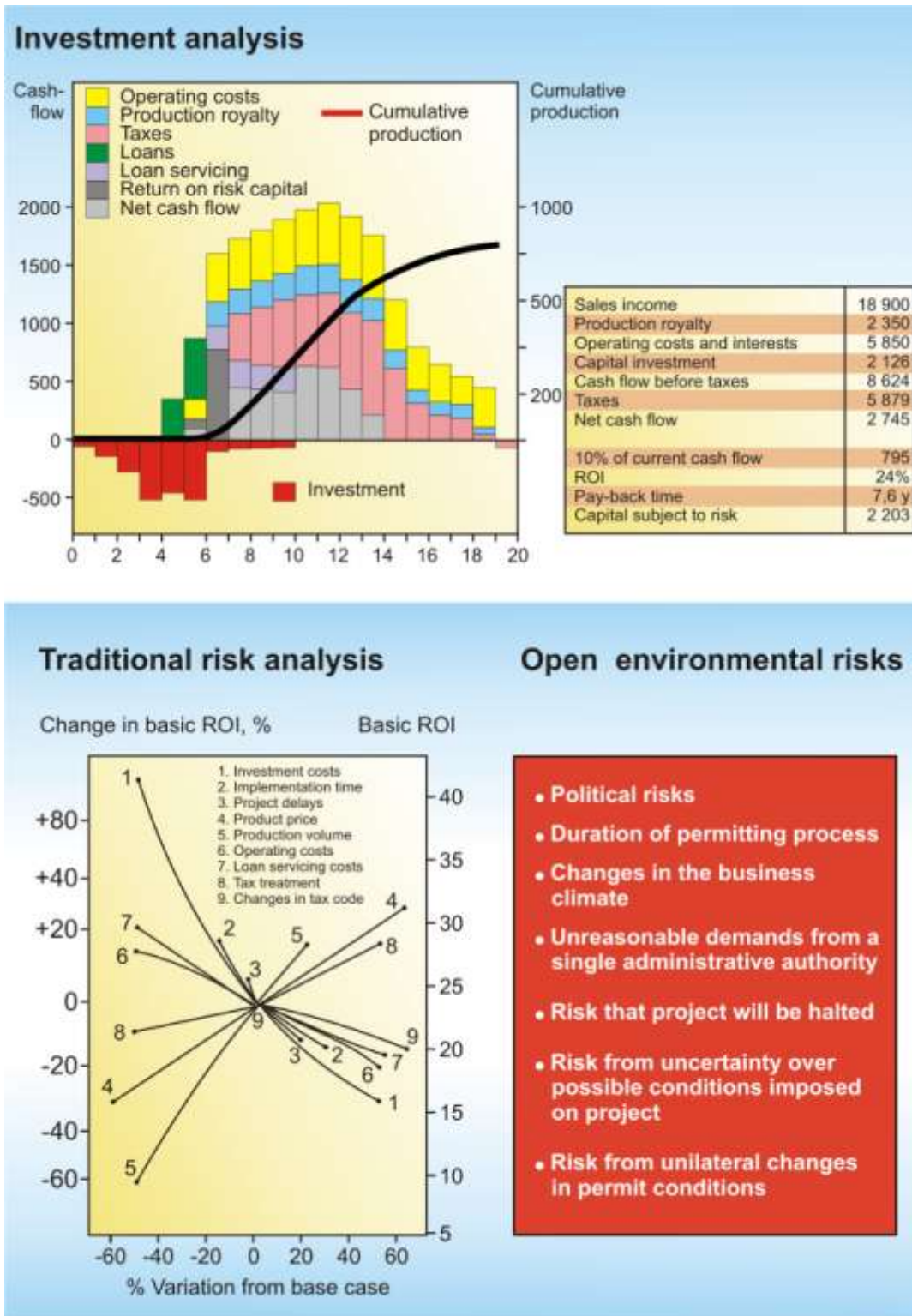


Figure 6.1. An example of the key factors in investment and risk analyses (modified from /19/).

Figure 6.2 considers the impact of two alternative permitting processes on the implementation timetable of a hypothetical industrial project. Under ideal Example A, we see that the permitting process proceeds at a reasonable pace and that the outcome is predictable. In this case, the project planning can be done in parallel to the permitting process. In addition, the project partners (process suppliers, society, clients, subcontractors, etc.) can plan and shape their own schedules according to the project timetable. In this case one can grab the business opportunity.

On the other hand, when the permitting process begins to drag on for some indefinite time, say three to eight years as in Example B, the corporation has little incentive to begin the costly project planning phase until the permits are issued. A long wait for permits can easily double the time from project conception to the commencement of production. When the permits finally issue, it is likely the market situation has changed or competitors have already reacted to the market opportunity. Moreover, the original basis of the permit may have lapsed, legislation may have changed in the interim, or the company may have lost its ability to take on the investment.

This kind of a permitting process is not very fruitful for building up new competitive productive activity. In many cases it is not worth pursuing at all.

The environmental impacts of the project are usually known well enough after the pre-feasibility stage to estimate whether there are any rational grounds against implementation. However, duration and the legal hurdles connected to the several parallel permitting processes are often much more difficult to predict.

As was well demonstrated in the Vuosaari harbor project, Finland's massive body of environmental standards today provides an endless assortment of bases for disputes. Unfortunately, this incident was not the only one of its kind. For example, a project to build a pipe coating plant in Kuusankoski ended in the death due to an over-extended environmental permitting process. It is hard to imagine what environmental issue in pipe coating was so intractable that it would prevent the plant's establishment.

As a result of new European environmental policies, standards are now mined with irrational rules such as those governing flying squirrel habitat and TBT levels. Common sense and proportionality take a back seat to obscure theory and legal gymnastics. The project promoter can no longer have faith in a timely and rational outcome of the permitting process.

Establishing a new industrial plant is in itself challenging to the project promoter. Add to this all the possible parties that may attempt to obstruct or modify the project proposal, including the local environmental center, other regional administrations, municipal offices, and state offices, local land owners, nature conservation groups, competitors and local residents.

The project promoter usually tries to manage the permitting process risks by giving out information, arranging press conferences and public events and negotiating in advance with key officials and interest groups. It also tries often to comply precisely with official demands. The project promoter may try to exploit its public image to sell the project to the public.

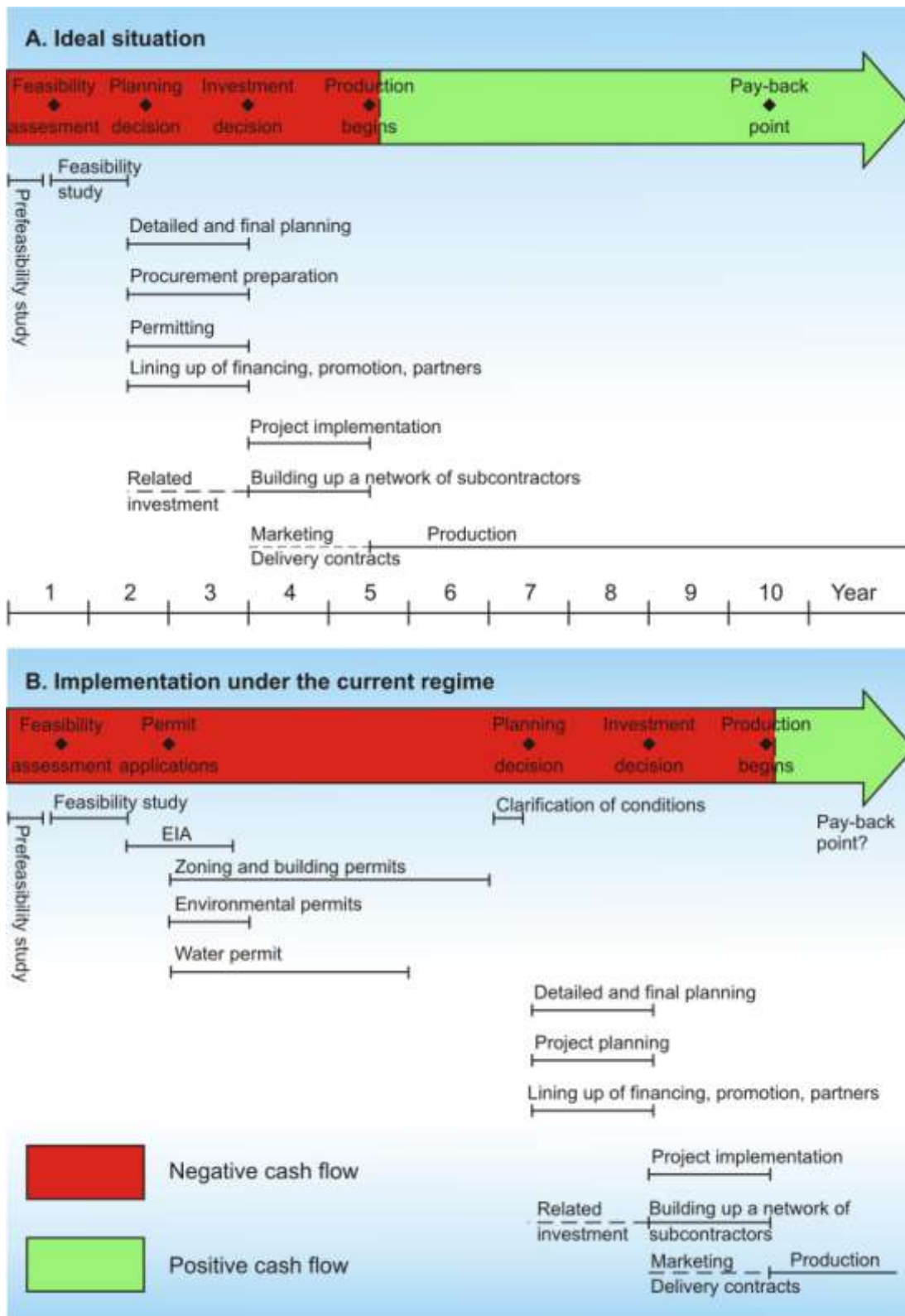


Figure 6.2. The effects of the permitting process on the implementation schedule of an industrial project – ideal and current scenarios.

The project promoter, however, finds himself in a poor strategic position. Legal protections are weak and appeals can be filed no matter how hard the company has worked to avoid them. In many cases, the opportunity to dispute the permit decision means the possibility to set the terms of the permit. The project promoter is left with the choice of approving those conditions, or abandoning the project and booking the loss of money and man-hours.

For example, in zoning private individuals and organizations generally resort to the appeals process when they want to secure or protect their own interests. Project promoters in turn routinely pay off potential nuisance-bringers ahead of time. These costs are then passed on to the ultimate user (i.e. the apartment buyer, the office space renter, or the energy consumer).

The project promoter is in an even more disadvantaged position if the project has moved through the expensive detailed planning phase and the project partners are merely waiting for the permits to clear. A good example here is the Leppävaara development project and the diversion of the Monikonpuro Creek. After long planning and complex mobilization of the one-billion-euro project involving the City of Espoo and other parties, the project timetable was nearly torpedoed by the city's own environmental office. The squabble was over the faith of a tiny fish population that theoretically might have been endangered from the project plans to shift the course of the creek.

Case: Effort to set up an offshore wind farm

Figure 6.3 provides a detailed schematic of the zoning process for a typical industrial project. This case example is an attempt to place a 50 MW wind farm in a shallow sea area close to industrial and harbor activities. If any party maliciously opposes a project, its chances of being implemented fall dramatically under Finland's act of land use and conservation.

In this case, the project was halted even before the zoning process when the environmental administration requested implementation of the environmental impact assessment (EIA). Finland's EIA act says that officials have discretionary power to demand the EIA process when the project is likely to cause significant harmful environmental impacts comparable qualitatively and in scope to those listed in the EIA statute.

In the feasibility study, the project promoter studied the project's main anticipated environmental impacts. The calculations showed that the project had an overall positive environmental impact several orders of magnitude greater than the negative environmental impacts. The negative environmental impacts were estimated to be about a thousandth of the EIA limit of a coal-fired power plant with fuel efficiency of 300 MW (Appendices 2 and 3).

The local environmental center said in a statement that the project had potentially significant environmental impacts. What these were exactly was never stated. By chance, the local dockyard announced the same week that it was negotiating about layoff of 900 workers. In Germany's all-important metals industry, wind turbine construction employs today more people than its shipbuilding industry.

When the Ministry of the Environment reviewed the local environment center's decision, it reaffirmed, adding that the project's environmental impacts may be significantly harmful for both migratory birds moving through the area as well as birds feeding and nesting in the area. In addition, the environmental impacts from project construction on water quality and

underwater life may be significantly harmful. A reference was made to the Vuosaari harbor project and possible harmful substances stirred up by dredging!

Recalling the “significance” of the environmental impact of the Vuosaari harbor dredging discussed in previous chapters, it is worth noting that in this case, wave action scours the sea bottom leaving a hard bottom in the wind farm area. The bottom could only hold insignificant amounts of harmful substances, because harmful substances are typically bound to the finer sediment fraction (as mentioned even in the HELCOM dumping guideline),

The EIA statute speaks of “likely significant” environmental impacts. The Ministry of the Environment speaks in its statement about impacts that “may be significantly harmful.” Thus, the ministry manipulated the language of the EIA act in its statement. Such manipulation is against Finnish constitution. Manipulation like this has become common in Southern Finland, where the environmental administration is constantly seeking to extend its authority beyond its mandate given by the parliament. However, the administration is never punished.

The environmental administration attempted to use its strong position to advance its own goals at the expense of the project. Rather than submit to the power, the project promoter put the wind farm project on hold. The environmental administration thus killed an early attempt to increase the supply of clean energy in Finland, as well as an effort to develop new competitive energy technology for the Baltic market.

As a rule, even the most compliant project promoters these days expect to encounter disputes when they file for environmental permits in Southern and Southwestern Finland. Thus, good planning practices now dictate that the project promoter is prepared for a lengthy permitting process as well as the accompanying costs and risks. Project opponents can find an almost limitless supply of issues that deserve further investigation.

One way officials, themselves unfamiliar with a particular issue, deal with a new problem is to order further studies. This phenomenon is known internationally as the dilemma of “nice to know versus need to know.” The original grounds for complaints or appeals can be augmented for example by new “scientific” discoveries. New conditions can be set on the project. This means that the conditions for industrial and other productive investments are poor in Southern Finland, except for those who can pass additional costs on to others.

Elsewhere in Finland, productive activity provides work for a lot of people, so the scale of an environmental impact is more likely to be taken into account. People are also more reluctant to file complaints or appeals and more willing to settle conflicts without going to court. Local officials often apply their common sense to a problem rather than seek direction from the main office in Helsinki.

Thus, better investment conditions for industrial or productive investments are found outside Southern Finland. Even there, however, the project risks have increased while conditions for investment have weakened. Central administration, environmental groups and nationwide media like to meddle with local disputes.

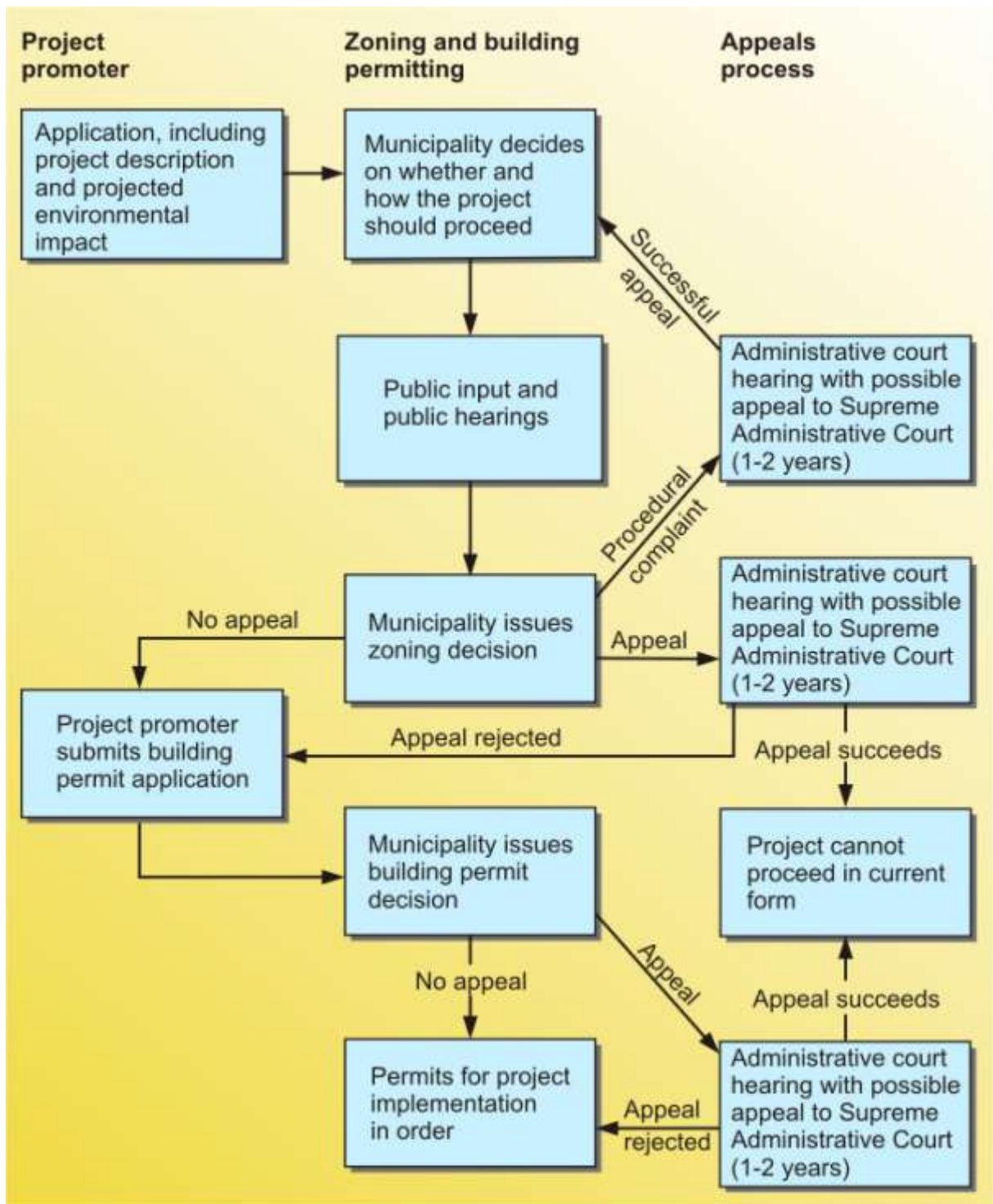


Figure 6.3. An example of the zoning and building permit process for a small offshore wind farm.

Changing operating environment

Traditionally, environmental permitting and laws have the benefit of conferring legal protection on projects and productive activities. When permits were in order and development of legislation was rational, there was a sound economical basis for operation.

The past decade, however, has seen a rapid evolution of environmental legislation and a concomitant focusing of attention on a wide range of vague or miniscule environmental risks. The official interpretations of rules have become stricter along with tighter demands on actors. This development has not been rational. It is sometimes impossible to predict what direction or form it might take.

In most industrial fields, capital investments were first directed within the plant gates, because greenfield projects carried more permitting problems. Gradually also these investments have encountered variety of bureaucratic obstacles even when providing net environmental gains.

Renewal of environmental permits has become a risk for plants or facilities. In this situation, excessive limits can easily be set on emissions and other impacts. Quite insignificant matters can be raised to the fore.

The UPM-Kymmene Kaukas mill waste water release discussed earlier provided an example of the problems facing industrial producers. In that case, the Ministry of the Environment demanded tightening of the permit conditions. The Southeast Finland environmental center issued a press statement /22/ saying that if everything does not go as planned, there could come a point when the mill would be ordered to close.

These tough positions are perhaps understandable for the perspective of those with summer houses who did not like the temporary nuisance of dirty water. The media and public debate bolstered the line of the officials. In any case, the officials have to possess means to see that the permit conditions are complied with.

The uncontrolled emissions in this case were exceptional and relatively minor compared to the situation only a few decades earlier. There was a slight exceeding of the permit conditions, and those affected were promised compensation. Moreover, the environmental damage was localized and transient. The impact of the emission on natural wealth and biodiversity was estimated to be just 0.6 km² eq. x year, which is comparable to the environmental impact caused by a few years of energy use by an average Finnish family (Appendix 3). There is a range of means including fines that can be applied to enforce permit conditions in a way that is proportional to the violation.

The issue of the one-sided decision to close the mill is not merely an environmental, but in fact a much broader social issue. In the following, therefore, we also discuss the implications of such a decision.

A prominent feature of the social debate has been the environmental criminal theme raised by the Finnish Environment Institute. Company directors, small operators and ordinary people are publicly labeled as environmental criminals without evidence of 1) actual harms to the environment or scale of damage or 2) recklessness or gross negligence. Charges of criminal behavior were leveled also in conjunction with the Kaukas pulp mill releases.

Often the criminal charge stems from a difference over interpretation as to whether a particular measure or activity requires a permit. A typical example involves the setting of a steel mooring structure in the Turku harbor area (see Figure 2.1). A local environmental official aroused a public outcry when he ordered a police investigation to determine whether an environmental crime had occurred since the mooring structure would have, according to the official's reading of the rules, required a water permit for its construction in the harbor. The Turku harbor's head engineer had to spend a considerable amount of time explaining to the police the finer points of the water act, the miniscule nature of the problem, and how the harbor construction permit process works in Finland. The matter was never pursued by the police, but the port's public image was stained.

When there is no will to include assessment of the relative significance of a particular problem by those setting environmental policy, those engaged in productive activities find themselves in a No Man's Land. The duties and open risks connected to productive activities have increased. If there is an intention to invest, a flock of people and public organizations resisting and making demands immediately descend on the promoter. This is fairly hostile treatment of those engaged in activities that benefit society as a whole.

Implementing EU directives

The implementation of the EU's regulatory framework in Finland has affected the status of business operators in many ways. The environmental administration's policy has been to interpret a given directive in its strictest sense, no matter what is its impact on local citizens. Thus, legal language itself can pose a threat to the industrial producer. In addition to the abundance of restrictions and regulations, statutes are vague or over-broad when they use such concepts as "best available technology" or "environmental permit valid until further notice".

The importance of productive activities for the society or legal protections of the administrative subordinates is not laid out expressly anywhere. When the regulation's practical application has been irrational or somewhat arbitrary, uncertainty has increased.

Surfing the EU Commission's website, particularly the DG of the Environment's web pages (EUROPA- Environment) quickly confirms that the flood of directives and legislation continues unstaunched, and the EU is preparing more new framework legislation to guide sustainable development and environmental issues.

In the time of this writing, it appears that that EU is defining how Finland should cut its carbon dioxide emissions. Furthermore, EU is also telling Finland how to produce energy. It is handing down targets for wave energy and bio energy production to its member country, for example. This is problematic in several ways.

Finland's base industries were adopters of advance environmental technology before the official cut-off date which defines their baseline emissions. Now they are forced to buy emissions quotas from competitors that would have shut down inefficient old plants anyway. Alternatively, Finnish firms can purchase industrial products from countries which are not participants in carbon-trading schemes. This kind of a development does not cut carbon dioxide emissions but weakens the European industrial base.

European Union has a rational base for its decision to start cutting carbon dioxide emissions. It may also have good reasons to push for the increase of its own renewable energy production. However, it is not in a position to make good decisions on how to achieve these goals. It would be much better to let member states and markets find their own ways.

The EU is developing an Integrated Product Policy (IPP) that considers the full lifecycle of products in reducing harmful environmental impacts. Unfortunately, there are no commonly agreed measures for dealing with harmful environmental impacts. Without objective measures, the policy runs the risk of capricious implementation.

Companies must also struggle with many inconsistencies in chemical legislation (REACH) and the new Environmental Liability Directive. These will cause additional headaches, increase open risk and higher costs. It is also problematic for firms when directives such as the Integrated Pollution Prevention Control (IPPC) Directive, the Large Combustion Plant (LPC) Directive, and the Water Framework Directive, are partly overlapping and contradictory.

The ideological approach to sustainable development promoted by Finland's environmental administration is also a cause for concern. The principles of sustainable development can be cited to hide all kinds of actions of power. Furthermore, when we have taken the initiative, Europe can easily boost its own self-image on environmental issues at Finland's expense in the very same way that Southern Finland seeks to boost its sense of self-worth at Lapland's expense.

From the standpoint of industrial and other productive organizations in Finland, the development of EU environmental legislation and its national implementation contains large hard-to-manage risks.

How industrial companies and other productive organizations adjust

The environmental policy practiced in Finland over the past decade has meant that industrial companies and other productive organizations have started to make a range of adjustments in how they operate. They have chosen not to fight openly for their rights, because they understand that a bitter fight with bureaucratic power usually makes no economic sense. At best little is to be gained. Continued harassment is more likely.

Instead they have changed their behavior.

If permitting processes are drawn out, expensive, and unpredictable, it raises the return-on-investment demanded by investors as well as raises the threshold for studying at all. When the payback on investments is plagued by higher open risk, ROI requirements and the threshold for investment are further increased.

In its national balance sheet accounting, Finland's Labour Institute for Economic Research found that investment by the corporate sector as a share of GDP had fallen over the past two decades from 25 % to just over 15 %. At the same time, the return on capital investment has risen to a record high, which in principle should have encouraged greater investment /45/.

This trend is not entirely unwelcome to large corporations. When unemployment rises, better quality workers and subcontractors are available and can be had at a lower price. If new production capacity is difficult to create, small, fast-moving competitors cannot enter the market and add to competitive pressures. Moreover, big companies can continue to use old production capacity, while raising prices and keeping their production capacity utilization high. The development of electricity prices in Europe and Finland are examples.

The restrictions of free competition provided by environmental bureaucracy may be partly behind the big profits of large corporations and extravagant bonuses for their bosses.

A large productive organization like the City of Helsinki does not necessarily mind the excesses either. The city lives from bureaucracy. If projects cost extra due to unreasonable criteria and demands, organizations and residents will pay it, not the city.

Large companies enjoy a stronger negotiation position relative to the environmental administration than small operators. They can play off local governments against each other by making a number of investment sites compete nationally or internationally. In this arrangement local governments seeking employment and tax revenues fight against the excesses of the environmental administration. Large companies also have resources to use experts well versed in environmental law. They have cultivated relations with many powerful politicians and public officials.

Large companies like to advertise their responsibility and environmental standards. They often participate in campaigns supporting some environmental goal. Corporate bosses routinely bring forward their green values in various forms in the media.

The success of multinational energy giants is based in part on the fact that their balance sheets can withstand the long public relations operations and uncertainties that accompany very large projects. When the time is ripe for one of the projects, they move ahead with lucrative terms.

When the legislation in Finland was clear, interpretation rational, and development predictable, industrial companies could be satisfied with ROI requirements for the project even below 10 %. In comparison, a ROI expectancy of 40 % is typical for investments in countries with inadequate investor protection.

Now large industrial companies have raised their minimum ROI requirement in Finland above 15 % in part to cover increased risk. Small and medium-sized enterprises are in weaker positions so their project ROI, in accordance with investment theory, should be even higher.

At the same time, the environmental investments demanded by officials depress the calculated ROI of projects, making them even less attractive. For example, the environmental detritus that burdened the Vuosaari harbor project such as a tunnel running under an “irreplaceable agrarian landscape,” sound barriers, and TBT removal, added about €100 million to the cost of the project. Competing ports, meanwhile, faced environmental investments nowhere near this magnitude.

Corporate adjustment to the new situation means a reduction in feasibility studies and industrial investments in Finland, as well as an increased emphasis on community relations.

Finnish industrial companies are now investing mostly elsewhere. Their employment in other countries is rising rapidly while domestic employment has stagnated or turned into decline.

Public administration organizations that produce e.g. infrastructure and municipal technical services must also adjust to this new situation. They spend more on studies and public relations. Implementation of projects takes longer and is more expensive. Some of the most beneficial projects are never implemented.

The economic consequences of environmental policy

The remarkable recovery of Finland's economy after a bitter recession in the early 1990s was largely due to the phenomenal success of the Nokia Corporation after it decided to focus its efforts on the cellphone business. Nokia not only created 10,000 new jobs directly, its indirect impacts on employment domestically through subcontractors and support businesses translated into perhaps 50,000 jobs. In addition, foreign investors pumped over €30 billion into the Finnish economy as Finns holding Nokia shares sold them or enjoyed their growth and state collected increased taxes from Nokia and its employees.

The losses incurred from the banking crisis were recovered many-fold. The service sector bloomed again, real estate prices skyrocketed and the building boom in the greater Helsinki region resumed.

Nokia's rise was followed by economic booms in Russia, Eastern Europe and China. These booms have greatly benefited Finland's economy.

The above discussion considered the waste water emissions from the Kaukas pulp mill and the threat that the environmental administration would shut the mill down. The consequences of such unilateral action might have included:

- Over 2,000 workers at the Kaukas mill and perhaps 10,000 people working in the production chain, service industries and municipal sector would have lost their jobs.
- UPM-Kymmene would have had suffered large economic losses as a result of writing down a major industrial facility.
- The action being comparable to nationalization would have caused other investment projects under planning being put on ice due to the perception of increased open risk.
- The transfer of industrial activities to more profitable or less hostile operational environments would have accelerated.
- Finland's creditworthiness would have been damaged.

In fact, the risk that the Kaukas pulp mill would have been closed was not particularly large. The environmental administration was hardly ready to face legions of unemployed people or the rage of labor unions questioning the wisdom of such a decision.

Such action would have also exposed the state to hundreds of millions of euros in damages if the decision was found to violate the proportionality principle. This is the type of confrontation that gives companies a financial motive to get involved in a legal dispute. A multinational like UPM-Kymmene, can also go over the heads of the environmental administration and take its grievances directly to the prime minister's office if it feels that its core business is threatened.

What is unfortunate here is that UPM-Kymmene's operations are protected more by a balance of terror than the law.

UPM-Kymmene, however, still is in somewhat weaker position than the environmental administration in negotiating the terms of its permits, even if its emissions are at or below the European levels and its technologies comply with the best available technology standards. Environmental officials do not relate to environmental impact or risks according to the selected level of protection, rather they interpret and define the rules from their own premises.

Small and medium-sized firms, which lack the necessary expertise and social authority, find themselves increasingly at the mercy of the environmental administration both in their operations and in negotiating permit terms.

Companies do not like to have their investments at the mercy of anyone. They want rationality and legal protection for their operations. The current arrangement is bad for the economy and conflicts with the rule of law.

The laws of economics are uncompromising. If reform of energy industry structures is difficult due to burdensome and unpredictable permitting processes, such structures are reformed slowly. If industry's energy-saving investments carry a risk that a premature investment will later cause economic burden when emissions trade schemes are realized, such investments will be delayed. Carbon dioxide emissions go down slowly, the price of energy rises, dependence on imported energy increases.

Finnish industry is left without experience and references from the domestic market that it can use to develop new environmentally friendly energy technologies that could be applied also elsewhere. Thousands of people are left without work.

If the possibilities of the forest industry, the metal industry or the chemical industry to grasp emerging business opportunities are weakened due to long and unpredictable permitting processes and expensive energy, investments will be implemented elsewhere. If the operating environment develops unfavorably, existing production will also be moved elsewhere. Thousands more will be without work.

If harbor development becomes difficult and port operators are forced to dedicate resources to dealing with minor or nearly non-existent environmental problems, then their international competitiveness will suffer. Ports dwindle along with other productive activities connected to them. High harbor tariffs plague Finland's export industries. Thousands more will be out of work.

The new environmental policy has the following consequences:

- There are fewer opportunities to invest in developing the existing industrial base;
- The threshold to establishing new productive activity is raised;
- The development and competitiveness of Finnish technology suffers from a lack of concrete challenges and project references;
- The operational conditions of small and medium-sized enterprises are reduced;
- Some operators can shift the burdens of environmental policy on to their customers;
- Finland's traditional business life is losing dynamism and vitality;

- Employment in Finland's traditional industries and the cluster of supporting businesses diminishes;
- Weakening of the industrial sector reduces the number of good jobs available and the multiplier effect such industrial jobs provide;
- Hundreds of thousands of Finns will be unemployed or pushed into low-paid part time jobs.

Unfortunately, the China phenomenon is not just attraction of cheap labor and emerging markets. Finland and Europe are pushing productive activities away with both hands. Once something is lost, it is hard to get it back.

Bad times ahead?

As a result of environmental policies, the Finnish economy is losing dynamism, that comes from the flexibility, innovation and rapid response times. The need for permit that cover every aspect of industrial activity and the absurd jungle of regulation have increased costs and eliminated competitive advantage. Human efforts are increasingly being directed toward working with sector officials rather than development of know-how, business and products. The joy of work has been lost for many of us.

In this situation one should question the point of government efforts to promote jobs, innovations and new enterprises. Would it be more efficient to put people in the Ministry of Finance, the Ministry of Labor, the Ministry of Trade and Industry and the Ministry of Environment to work on this problem rather than investing taxpayer's money on this promotional work?

A hostile operating environment reduces the number of competitors large companies must deal with. Unfortunately, the lack of competitiveness also makes firms lazy. International competitiveness suffers.

Now that the telecommunications sector growth as stabilized, attention has shifted back to the state of Finland's traditional industrial branches. Mr. Markku Wallin, the highest civil servant at the Ministry of Labour forecasts that traditional industry will lose 100,000 jobs in the coming decade /11/.

We are supposed to be calmed by the notion of moving towards a post-industrial society that involves trade in information and services. The prevailing attitude in the environmental administration is that industrial production can be moved elsewhere. The mantra is that through greater investment in education and research we shall preserve and even foster increased prosperity for Finnish society.

Unfortunately, such thinking is built on a dangerous illusion. Information that has market value is usually generated in connection with real-world activities. Information generated by public administration research institutes, in contrast, is generally disconnected from real-world problems. When we are pushing productive activities elsewhere, we will find out that information with market value will follow production with a slight delay. As the economy weakens, there is no demand for the increased supply of service workers available – no matter how educated they are.

The EU environmental policy has provided the Finnish environmental administration an unreasonably powerful position in relation to those who produce value for the society. There is a danger that this will lead to a breakdown of society's structures with an intertwining of large corporations, political power and bureaucratic elites. In this arrangement, statutes and standards are bent to favor some and applied in other ways to harm others.

Such an arrangement can be found in some old European countries. Italy and Greece are of course at the brink of bankruptcy in the next recession. France and Germany are not far behind.

Guided by the sustainable development liturgy, Finland is now headed in a bad direction. Spiritual renewal has turned to manipulation, bureaucracy and arbitrariness. Our material, social and legal welfare are threatened. Fulfilling employment opportunities are getting rarer. The opportunities of individuals to build a future through productive activities have narrowed. If this continues, it will be futile for us to struggle to save our welfare state and our generous pension system.

We are being led to a bitter squeeze between the state bureaucratic power machinery and the economic power machinery of large corporations.