

# VOLUNTARY AGREEMENTS AS A VEHICLE FOR POLICY LEARNING

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## ABSTRACT

Present literature identifies policy learning (PL) as contributing to effective and efficient policy design and management processes. Similarly, the participatory nature of specific voluntary agreements (VAs) has been identified as contributing to increased policy framework effectiveness and efficiency. Against this background, this study aims to prove the hypothesis that an increased attention to the possibilities for PL that exists in the VA policy framework can contribute to a better design of VAs, as well as potentially providing more positive evaluations thereof if acknowledging said learning. Hence, the study analyses to which extent that the literature acknowledges VAs' learning potentials, and evaluates which policy recommendations that can be provided to increase the potential for PL. The study finds that VAs in the form of negotiated agreements are more successful in promoting PL than other types of VAs that have less focus on the participatory aspect of the policy processes. The study also identifies that the policy cycle of negotiated agreements includes four different stages of learning possibilities. As to facilitate that these stages can be fruitfully explored, the study presents recommended policy design and management elements that can increase learning. To this end, the study does not aim to provide recommendations for the entire VA process, as suggestions focus specifically on the learning aspects. The paper contributes to the existing VA policy literature through highlighting the predominately overseen learning values of implementing negotiated agreements as well as providing policy recommendations on VA learning processes.

**KEYWORDS: NEGOTIATED AGREEMENTS, PARTICIPATORY POLICYMAKING, POLICY LEARNING, CLIMATE POLICY**

## INTRODUCTION

Reports from the Intergovernmental Panel on Climate Change (IPCC) have strengthened the evidence of anthropogenic greenhouse gas (GHG) emissions as the main driver for climate change (IPCC, 2007). IPCC scenarios indicate that global GHG emissions would have to be reduced by 50-80 % to 2050 (compared to 2000) in order to keep the global mean temperature below a +2.4°C increase (*ibid*). This increase has commonly been identified to avoid the most severe effects of climate change for our social structures. Recent publications have however reported that there are reasons to believe that such temperature levels will result in larger impacts than previously perceived, hence putting increased emphasis on emission reductions, which due to precautionary considerations should be more far-reaching (Smith et al., 2009). This increases the urgency to accomplish emission reductions in the short-term as to provide the momentum to reach longer-term targets. Based on the need for short and long-term emission reductions, policymakers have adopted a number of emission, energy efficiency, renewable energy utilisation, and technology deployment goals (such as wind energy and carbon capture and storage). Moreover, the Stern Report identifies that the costs of abating emissions and mitigating climate change will be substantially lower if dealt with through early measures compared to a wait-and-see attitude (Stern, 2007). Each of these factors, and even more so in combination, emphasise the urgency for policymakers to adopt policies that can facilitate such a development.

Hence, abatement measures should be accomplished in the short-term and in a cost-containing fashion, which require that policies implemented to promote this development are effective and efficient. Policy designs should therefore be long-term and aim for high acceptance, as opposite characteristics can reduce said effectiveness and efficiency, and may even counteract the policy goal (e.g. Blyth et al., 2007; Dinica, 2006; Stigson, 2007). Moreover, the development of a policy framework may, depending on the governmental approach to the design and management processes, involve different actors. These policy processes should acknowledge that the industry plays an essential role as the decision-makers who take action on the abatement investments that will ultimately decide whether or not emission abatement and technology deployment goals will be met (Stigson et al., 2009b). As such, the industry has a role to play as

policy experts with knowledge on how considered and implemented policies will, and do, affect said investment decisions.

Policymakers can take different measures aimed to avoid policy designs with undesirable negative consequences and to acknowledge the role of non-policymakers, such as the industry. One such measure is to utilise experience in the policy environment through policy learning (PL) and participatory policymaking processes. Both of these measures are supported by a strong body of literature as improving policy design and management processes within a policy cycle (e.g., Bennett and Howlett, 1992; Papadopoulos and Warin, 2007; Schofield, 2004). The potential benefits and urgency to acknowledge participatory policymaking as a means for PL is emphasised under uncertainty, such as the current novel policy conditions that has evolved as a response to climatic change (Papadopoulos and Warin, 2007; Stigson et al., 2009b). This includes that policymaking processes must be adaptive to changes in the policy environment, such as the science behind climate change (Swanson and Bhadwal, 2008).

Policymakers can also adopt policies that inherently, or by specific design elements, are more stable and have higher acceptance than other possible policy choices. The nature of such policy choices are generally context specific and depending on, *inter alia*, political traditions, economic systems as well as political acceptance. While there are a wide variety of policies used in the climate and energy politics, there is one policy instrument group – voluntary agreements (VAs) – that singles out as incorporating participatory and learning elements. This is due to the participatory policymaking nature of certain VA designs, which can establish new and effective arenas for policymaker-industry knowledge-sharing of new learning material that is made available through the agreements (e.g., emission volumes, energy intensities, and investment willingness). Such a broad array of soft-effects is generally not facilitated by other policy instruments where the design is decided by policymakers in a more unilateral fashion, e.g., taxes and administrative instruments.

This paper analyses, with a focus on climate and energy policy in a policymaker-industry context, how VAs can contribute to inducing PL as well as how PL values can strengthen the design and evaluation of VAs. This is based on the hypothesis that specific designs of VAs, such as negotiated agreements (NAs), inherently induce PL into the policy design and management processes. As such, the paper focuses on the following three questions:

- To which extent do the literature identify that VAs induce PL into the policy processes?
- To which extent is the potential learning merits of VAs acknowledged in analyses of specific agreements, as well as in a broader policymaking context?
- Which design of VAs can be recommended to facilitate favourable learning conditions?

The aim is to provide policy recommendations that contribute to the existing literature on the subject, through analysing under which conditions that an additional value of implementing VAs may occur and be promoted in the policy design and management. However, this is not aimed to provide a complete set of recommendations for the design of VAs, but rather to highlight policy lessons aimed to improve the potential of VAs to facilitate PL.

The research is based on a literature study with a focus on a metadata comparison regarding recommendations in relation to the inclusion of PL in the evaluations of VAs as well as design recommendations of VAs. The included literature has primarily focused on climate policies and PL, but has also included unspecified learning to the extent that it has been found relevant to the study. The literature sources are mainly twofold; published research and recommendations by governmentally sanctioned multilateral organisations (e.g., OECD and World Bank).

The paper is structured as follows. The next section outlines the theoretical background of VAs and PL based on a literature survey to explain the theories in more detail, develop their conceptualities in light of the focus of the study, and to highlight their problems, values, and individual contribution to improved policymaking in terms of effectiveness and efficiency of both policy processes and regulation. This is followed by a section where the inclusion of learning in VA policy evaluations by different stakeholders is discussed. This section also includes VA policy recommendations that may promote learning values (although primarily not defined as such). These lessons are further discussed in a section on operationalising

PL within a VA framework in a staged approach. The paper ends by highlighting main policy suggestions and conclusions.

## **THEORETICAL BACKGROUND**

### **Policy learning and participatory policymaking**

Arguing that industrial policy expertise should be better utilised in the policy processes is parallel to the theories of PL and participatory policymaking.<sup>1</sup> PL refers to the idea that policies should be designed and managed while taking factors in the policy environment into consideration (e.g., Bennett and Howlett, 1992; Schofield, 2004). This enables a larger group of stakeholders with policy knowledge to act as policy analysts, allowing a transition from an external and neutral position to actively contributing as policy advisors in an interactive and participatory learning process. In this setting, governments work more as policymaking facilitators than single decision makers (Geurts and Joldersma, 2001). The latter theory, participatory policymaking (or interactive policymaking), refers to a policy development process with a multitude of actors who contribute to the process and reaching a shared outcome (Driessen et al., 2001). The two are thus similar in general terms, but PL is more researched and consequently conceptualised. The benefits of policymaking through an interactive process (including PL) has *inter alia* been highlighted by van Ast and Boot (2003), Driessen et al. (2001), Etheredge and Short (1983), Geurts and Joldersma (2001), and Szarka (2006). Additionally, Wallner (2008) identify that efforts by policymakers to shape legitimacy of policies is an important aspect in avoiding policy failure. PL hosts different schools and the study focuses on government learning as developed by Etheredge and Short (1983), relating to a PL process leading to an increase in governmental intelligence and effectiveness.

While learning is the main subject of PL, it is not firmly stipulated how this learning should occur or be promoted. The concept is thus open for different types of facilitators to work as the catalyst for learning. This may, *inter alia*, be an arena for dialogue, referrals for legislative proposals, or reporting requirements. This said, it should be emphasised that while the facilitators offer a possibility for PL, the actual level of learning that occurs depends on the willingness of policymakers to acknowledge and utilise the expertise in the policy environment that is offered through these channels.

While the merits of PL consequently are supported by a strong body of literature, the concept is less applied by policymakers (Bennet and Howlett, 1992). There is consequently room for suggestions on how to improve policymaking processes through incorporating learning.

### **Voluntary and Negotiated Agreements**

The use of agreements by policymakers and other actors, commonly referred to as VAs, have a long history within many different policy domains. How these agreements are designed is an essential characteristic which determines the type of VA that is designed. Börkey and Lévêque (2000) distinguish between three groups of VAs:

- Unilateral agreements: specific undertakings as formulated by industry stakeholders themselves (including targets and compliance mechanisms) and communicated mainly to their stakeholders (i.e., employees, shareholders, customers, etc.).
- Public voluntary schemes: the industry adopts an agreement that is unilaterally designed by a public authority, which contains pre-specified conditions of operational performance, monitoring, and reporting that are stipulated by the policymaker. In return the industry may receive a benefit (e.g., R&D subsidies, technical assistance, tax rebates, and labelling for marketing purposes), which work as an incentive to sign the agreement as well as to comply with its stipulations.
- Negotiated agreements (NAs): contracts between public authorities and industry, which in comparison with the former unilaterally designed public voluntary schemes, are bilaterally developed. They may be binding or non-binding and may otherwise include similar characteristics as public voluntary schemes.

Nor VAs or NAs are however without critics. There are several studies arguing that these policies mainly promote a business-as-usual (BAU) scenario, meaning that investments under the agreements schemes lack additionality, as well as allowing free-riding (e.g., Ekins and Etheridge, 2006; OECD, 2003). Other studies disagree and argue that VAs do provide additional investments and have important values, such as

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<sup>1</sup> It is also similar to neo-corporatism, meaning a stronger inclusion of powerful actors in politics, which has been highlighted as positive for environmental regulation by Jahn (1998).

being rapidly implemented and having high flexibility (e.g., Helby et al., 1999; OECD, 2003; Rietbergen et al., 2002). Moreover, there is evidence that the success of VAs is significantly improved when associated with a stringent compliance mechanism and/or tax rebates (Bjørner and Jenssen, 2002; Helby et al., 1999). And, after all, less stringent targets will inevitably provide less ideal conditions for improvements regardless of which instrument that is used. In all, it can be concluded that the choice of VA type and specific design as well as how the design and management processes is operationalised have a significant impact on agreements' effectiveness and efficiency.

## **ANALYSIS OF POLICY LEARNING WITHIN VOLUNTARY AGREEMENT**

### **Scientific literature including voluntary agreements and policy learning**

Studying how VAs have been evaluated in literature, it is evident that the PL capacities are not considered as a main feature. In fact, except for earlier findings by the authors that VAs and PL share common elements (Stigson et al., 2009b), the work on climate change and government-industry PL almost exclusively belong to the work of Krarup, Kristof, and Ramesohl although mostly not included as the core subject that is analysed (Krarup and Ramesohl, 2002; Ramesohl and Kristof, 2001). Some work however importantly highlight that there is a potential benefit of learning within VAs and that this value may be significant (Ramesohl and Kristof, 2002). Hence, this study to a large extent agrees with their findings through the formulation of the study's hypothesis. Krarup and Ramesohl (2002) and Ramesohl and Kristof (2002) however do not much detail of different types of VA design elements in terms of how they contribute to this process. They instead argue that the obligatory negotiation and monitoring phases provide the conceptual framework for learning, thus leaning towards NAs in their analyses. As is described in the following section, however, the different types of VAs include different stages and processes that facilitate learning, and not all VAs include negotiation and monitoring. As such, their work largely neglects to highlight some important policy instrument characteristics of VAs and thus also which specific designs of VAs that can contribute to promote the identified PL. Furthermore, the work of Ramesohl and Kristof (2001) argues that learning is required to improve a situation where policies are inherently sub-optimised and subject to changes in the policy environment. They moreover highlight case-study findings that the main source of knowledge, hence representing the learning material, lies in a continuous evaluation of monitoring results. Ramesohl and Kristof conclude that agreements should be highly detailed as to drive change within many areas, which is parallel to facilitate maximised learning. In addition, Krarup and Ramesohl (2002) identify, in their analysis of five different VA schemes, that positive effects on government-industry communication have been present in all cases, but that learning requires explicit rules on how the policy design and management should be operationalised. The importance of this initial work on the subject is acknowledged and the study aims to further develop the relation of specific VA design aspects which can realise these merits in practice.

Börkey and Lévêque (2000) have, as aforementioned, studied different classifications of VAs. With this focus they have highlighted the values of NAs as a means for policymakers to acquire, through close cooperation with industry, the knowledge necessary to establish development goals for waste management. In a climate context they have identified higher industry acceptance relative other policy instruments, such as taxes, as the reason for adopting NAs. They highlight that NAs are preferable when policymakers face technological uncertainties, as was the case with waste management. The use of NAs in a climate context based on acceptance thus seemingly oppose their own findings in that it neglects the complexity and plurality of GHG abatement and climate change mitigation as a key determinant to adopt such policy initiatives. They nevertheless conclude that there is a stakeholder agreement that NAs, not VAs in general, provide important values of improving communication, awareness of problems, and consensus building; thus highlighting the negotiation phase of NAs. This is not presented, but is naturally applicable, in a specific PL context.

Some work on the subject has also been provided by Sullivan (2008), who has analysed which role that voluntary approaches can play in climate change policies and discusses the positive learning values that VAs provide. Similar to that of above though, the analysis do not include a discussion on which VA types that can provoke such values and also, importantly, do not include that these merits as a key constituent of implementing VAs.

### **Other literature on learning and the design of voluntary agreements**

There are other studies that deal with voluntary policy approaches in other theoretical settings than PL and climate change. The results of these studies are analysed in relation to lessons that can be utilised in the specific participatory learning processes of this paper's focus. While specific literature on this subject is

somewhat limited, there are naturally more studies relevant to the field of policy theory than those studied in this paper; however, the authors believe that the selection included provides a representative overview of different areas where participatory policy making and learning intersect.

One example is ten Brink (2002), who develops a classification of NAs into three groups depending on the function within a policy framework: i) a bridging function where the NA is an intermediate step towards other regulatory measures; ii) a supporting function where NAs support other policy instruments; or, iii) an independent function where the agreement does not relate to other policies but rather makes other policies redundant in the field covered by the NA. While these are valid functions, the potential value of PL as emphasised above, motivates that NAs, as well as VAs, should be assigned a fourth *facilitative function* (or *learning function*) where the agreements facilitates different stages of learning depending on the design thereof. As such, the learning merits are argued in this study to be so essential that they should not be seen as necessarily functioning as a bridge to the introduction of a replacement policy or supporting other instruments, neither should this function exclude an independent function. That is, the facilitative function is parallel to the three functions outlined by ten Brink and can occur within different types of VAs on different levels. Another example is an analysis of industrial VAs by Bailey (2008), where there is also little notion of the different learning capabilities, as the analysis of the merits of the agreements' design features is limited as to "improve the environmental performance of agreements, including reporting, monitoring, and the use of legal and financial sanctions to ensure compliance with agreed targets".

Hansen et al. (2002) argue that NAs are the most viable alternative to more traditional policy approaches (e.g., taxes). Relying on unilateral agreements is seen as risky in terms of regulatory effectiveness and public voluntary schemes are argued as suffering from information asymmetries. In an analysis of three NA schemes they identify that one scheme included information-oriented provisions as suggested by OECD (1999, also see below), another included weak attention to informational soft-effects, and the last scheme did not include any of such considerations. The identified learning was however analysed in an industry-industry learning context of technology information, rather than a government-industry which is the focus here.

Studies by Aggeri (1999) and Könnölä et al. (2006) have analysed VAs from an innovation policy perspective and touches upon learning aspects. Aggeri emphasises the monitoring phase of VAs as a key proponent of learning as well as highlighting pooling and making knowledge available, plus identifying where action may be taken, as important measures. This highlights the importance of evaluations as a means to facilitate learning in that he emphasises the importance of guiding actions. Könnölä et al. identifies that common VAs may lack capacities to deal with discontinuity and suggests a new VA approach which is aimed to promote a collaborative policy environment within which mutually beneficial learning may occur between policymakers and industry. The suggested design focus on the negotiation phase where a more participatory approach is seen is a solution to obstacles identified as arising from predefined problem definitions.

Dinica et al. (2007) have studied voluntary energy efficiency agreements in The Netherlands in terms of their settings and experiences. As a factor that has positively influenced the schemes performances, the authors identify the bottom-up processes in defining the quantified goals, which included negotiations and consultation of an independent expert, as contributing to higher policy acceptance and motivation. The inclusion of an independent third-party expert is emphasised in terms of a facilitator of a "good information structure". As such, learning is implicitly mentioned and identified as contributing to the efficiency of the agreements but not as having merits of supporting a broader dissemination of knowledge.

van den Hove (2006) focus her study on participatory policy processes as a tool to deal with the complex challenges of environmental issues on an ecologic and societal scale, which springs from the necessity of acknowledging the pluralism of global problems as well as solutions. As such, she does not target VAs or PL in specific, however touching upon aspects which could be incorporated into a developed PL strategy and are inherently included in NAs. van den Hove's study builds on Habermassian communication theories to highlight aspects that are important in establishing well-functioning participatory decision making approaches (i.e. not exclusively targeting policymaking). These are: i) free speech, aiming at a situation where all participants can voice their opinions and are equally evaluated; ii) consistency, in terms of participants being rationale and responsible for the personal opinions voiced; iii) transparency, where participants' opinions are explicit and subjectivity clear and open for critique; and, iv) common interest, as participants should aim beyond individual interests to address the commonality of the issue at hand. van den Hove furthermore identifies that negotiations within a participatory processes generally neither *a priori*, nor *a posteriori*, occur in

a consensus environment. As such, participatory approaches are more suitable to reach an agreement, rather than a consensus.

### Views of political institutions

Looking beyond the scientific literature and focusing more on policy attitudes of governmentally sanctioned institutions, the situation is similar to that of above – i.e., the learning values appears to be largely overlooked. This can be found, for example, in an evaluation by OECD (2003) of VA effectiveness and efficiencies, which did not identify increased stakeholder cooperation and/or the consequential learning potential as a merit. Hence, the policy recommendations on VAs that were offered did not include any suggestions on how to improve or maximise this benefit. However, an earlier report on VAs' role in environmental policy, by the same organisation (OECD, 1999), did include soft-effects in terms of including technology oriented information provisions – not policy oriented – as a measure which could improve their function (Table 1). The study concluded that the nature of these effects required further research to develop the understanding thereof. This value of learning was nonetheless excluded in the later report.

Table 1. Suggestions for voluntary agreements designs (Source: OECD, 1999)

<i>Suggestion</i>	<i>Details</i>
Clearly defined targets	Transparent and clearly defined targets. Quantitative targets. Interim objectives to allow for identifying barriers at an early stage.
Characterisation of a BAU scenario	Establish BAU before setting targets to establish a baseline for evaluation.
Credible regulatory threats	A threat of other regulatory initiatives if BAU is not exceeded to promote commitment.
Credible and reliable monitoring	Key to facilitate evaluation of improvements. Both at sector and company level
Third-party participation	Increase credibility of performance monitoring. Public and transparent reporting.
Penalties for non-compliance	Promote compliance with set targets.
Information-oriented provisions	Maximise informational soft-effects through technical assistance, technical workshops, best practise guidelines, etc.
Provisions to reduce competitive risks	Report VAs to anti-trust authorities.

The EU looks favourably on the use of voluntary approaches and while a collaborative policy approach is seen as having a value of information dissemination, the learning aspects are not included as a criterion for their evaluation (European Commission, 2002). Neither is the learning values seen as a merit and thus not promoted in the EU guidelines for environmental agreements (European Commission, 1996), nor did the European Parliament (2003) identify this as a gap in an evaluation of the Commission's work on the subject.

Learning values are not highlighted by the UNEP (2000) either, but an improved dialogue and trust between policymakers and industry, leading to improved regulatory certainty, is seen as one of three key advantages of successful VAs. Based on an analysis of NAs in The Netherlands, lessons learnt includes transparent design process with independent monitoring, involving major players, and the creation of small negotiation groups with extensive feedback to stakeholders in the policy environment. Other highlighted lessons were that reporting may be difficult due to factors such as “[...] limited time and resources of partners, confidential/sensitive business information, differing reporting cycles [...]”.

The UNFCCC (2002) has in a report on good practises in climate policies identified that NAs are more efficient than other VAs, but do not otherwise draw any conclusions on which design or management aspects that may contribute to improved policy functions. Learning is not included in the analysis. The IEA (2000) does not link VAs with PL but highlights that monitoring systems and benchmark studies, which produce transparent, credible, and accurate data, may provide invaluable feedback and as such facilitate PL.

### DESIGNING AND MANAGING AGREEMENTS TO FACILITATE POLICY LEARNING

The fact that VAs may include increased dialogue and knowledge-sharing is consequently not new *per se*, as this has been included in different studies. However, the potential for learning, as opposed to undefined dissemination of information without any concrete ambition of building decision capacity, is less emphasised. This means, that while learning is occasionally seen as a soft-effect of VAs and NAs, it is not identified as a

key feature. Also, where soft-effects are identified, they are generally assigned to industry-industry learning on technology, environmental management strategies, increased attention to monitoring, etc. They are to a lesser extent, with a few abovementioned exceptions, assigned to PL. While both learning situations are important, the latter is a key aspect of acquiring knowledge about aspects such as the factual situation in the industries in terms of emissions, resource flows, process efficiency, and investment willingness. There is therefore reason to include a greater attention to qualitative learning effects, parallel to quantitative monitoring results, in the design and evaluation of VAs. Nevertheless, the suggestions for designing VAs and NAs that are offered above may be used in this section as to develop recommendations for a novel framework on how to operationalise design and management of NAs with an aim to exploit and utilise the learning potentials.

Participatory processes will predominately occur in an environment where a consensus of opinions does not exist (van den Hove, 2006). Such processes will therefore include both desires to cooperate and elements of conflict on which measures to take to reach which goals. This holds true for VAs, but should be especially considered as an aspect in the NA processes, and even more so when such agreements are designed for collective purposes. Internally, policymakers will always have to make tradeoffs between, *inter alia*, what is politically acceptable, beneficial for employment, state finances, and required by domestic policies or bilateral agreements. The industry, on their side, may face internal conflicts about the support for NAs as a policy instrument, what incentives that should be demanded, what the sector can accomplish in return for a given incentive, etc. Conflict will also occur between policymakers and industry in terms of, *inter alia*, incentives offered versus commitments to action, and profit maximisation of enterprises versus loss of fiscal revenues from taxes. It is consequently under these circumstances that NA and PL processes will occur. This means that the policy processes and design of both VAs in general, and NAs in specific, should be well-managed as to avoid potential pitfalls and utilise the potential for conflict resolution that lies in the participatory approach, especially as the conflicts may be difficult to evaluate *a priori* and where positions can be expected to change as a result of the learning that occurs. The findings of van den Hove (2006) that participatory processes are way of reaching agreements, rather than consensus, rightfully acknowledges this complexity and complies with the pluralistic context of a collective policy initiative. The suggestions for a well-functioning participatory approach by van den Hove (2006) are thus well suited as suggestions to deal with the potential problems of stakeholder interest asymmetry that is one of the common points of criticism of VAs and NAs.

Moreover, the importance of learning is emphasised under uncertain conditions where improved dissemination of experiences can facilitate more effective and efficient adaptation to changing conditions. This includes technological uncertainties as well as uncertainties regarding the effects of climate change adaptation and mitigation. One example of this, among many, is that abatement scenarios generally assign carbon capture and storage as capable or realising 15-55 % of the emissions reduction potential to 2100 (IPCC, 2005), although the technology is still not tested on a larger scale than pilot plants. Contrary to this argument however, Börkey and Lévêque (2000) do not identify that learning has been a driver for implementation of climate related agreements. There is consequently a potential for adding an emphasis on VAs and PL in climate policy frameworks under the current conditions.

Table 2. Learning potential of different types of VAs

<i>VA type</i>	<i>Policymaker-industry dialogue</i>	<i>Learning potential</i>
Unilateral agreements	None	Low
Public voluntary schemes	Reporting	Intermediate – High
Negotiated agreements	Discussions on potentials for operational improvements, compliance economics, reporting, policy management, etc.	High – Very high

The three types of VAs (see Table 2) are similar in that the participation is voluntary, but they have otherwise a large degree of design flexibility. The key design characteristic studied here is to which extent that the specific type of VA and design thereof facilitates learning. While all VAs have a potential to induce learning through an increased dialogue and knowledge-sharing between policymakers and industry, the participatory nature of negotiations better facilitates for the learning to take place. While unilateral agreements may not provide any additional learning compared to other policy instruments, public voluntary schemes and NAs are more capable of including different modes of dialogue and knowledge sharing. This emphasises the large influence of design and management characteristics on the agreements' potential to induce learning. The

highest potential for catalysing PL lies in NAs, which consequently is the focus of the following policy suggestions on how to operationalise learning in a VA context. Despite this focus, suggestions can also be useful in the design and management of public voluntary schemes.

**Policy design cycles and voluntary agreements learning stages**

The process of dealing with a public problem with a policy initiative and analysing such initiatives is commonly conceptualised as occurring within a policy cycle. This includes agenda setting, policy formulation, decision-making, policy implementation, and policy evaluation (Howlett and Ramesh, 2003). This is here transposed to a stage-by-stage approach with four policy learning stages (Fig. 1) where agenda setting and policy formulation is included in the 1<sup>st</sup> stage, policy implementation in the 2<sup>nd</sup> stage, and policy evaluation in the 3<sup>rd</sup> stage. A 4<sup>th</sup> feedback stage is added in order to put emphasis on looping and the role of using what was learnt as a teaching tool, i.e. to bring new knowledge to stakeholders in the policy environment as input to a continuous policy management process. Also, decision-making is excluded as it assumed that the choice to use NAs has been taken and that the policymakers and industry are at a stage where they face the processes of designing and implementing an agreement. There are of course other learning aspects that can be argued as important within a policy framework as well as in the policy cycle of choosing a policy instrument. The focus here is however on measures that can be taken within the specific NA cycle. This choice of boundaries excludes aspects that may benefit or obstruct the use of VAs, such as acceptance and cultural issues, as the choice to implement this policy is seen as taken and these barriers consequently overcome. This does not neglect the importance of the learning that may occur in the agenda setting phase of a policy cycle. This potential however exists within any policy cycle and thus not facilitated by an agreement process as is the focus of this study.

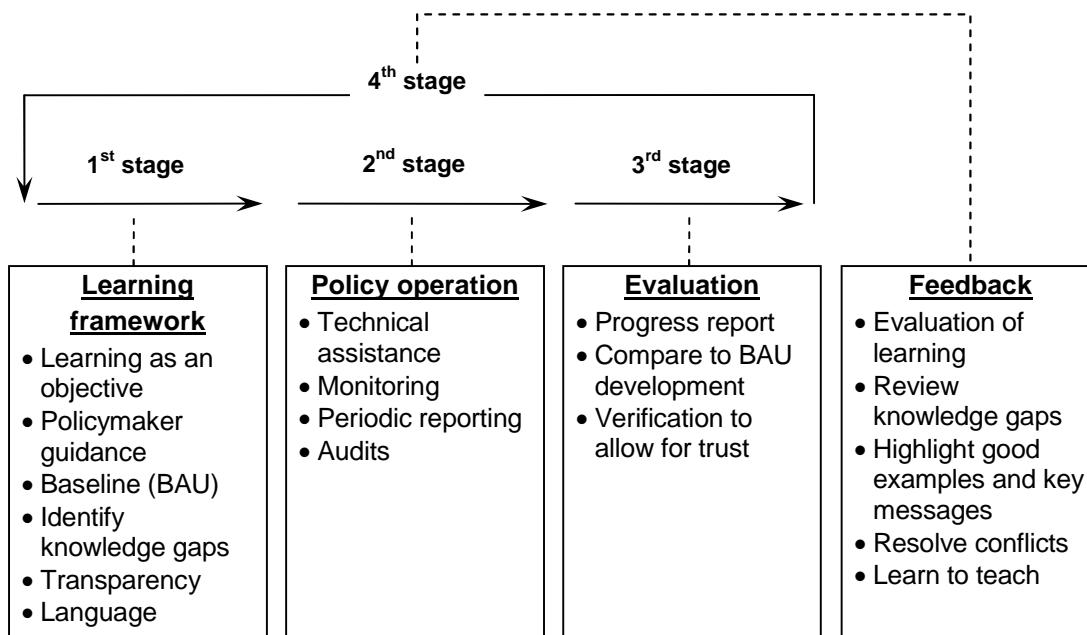


Fig.1. Different learning stages and measures to improve the policy learning potential of negotiated agreements

The 1<sup>st</sup> learning stage – learning framework – aims to set out the learning agenda within the overall policy design and management processes. It should be emphasised that this stage must be collaborative in order to constitute as a NA and that the following tasks should include policymakers and industry in a participatory process. Important procedural aspects of the learning framework are:

- *Learning as an objective:* Emphasise learning – not only finding an acceptable policy instrument design – through highlighting that this is a parallel objective to the quantitative goal. This means to establish a mindset among the stakeholders included in the NA that knowledge-sharing is important and will be a policy priority.
- *Policymaker guidance of the processes:* Policymakers should provide the basic elements of the policy process, such as an arena where the industry feel confident in sharing relevant information and to the



value of the management spending that will result from the participatory process. This includes that the governments should enact some form of “carrots” as to incentivise a close participation and “sticks” to ensure that the necessary learning material is delivered. Another reason for the government to take on a facilitative role is to assume these costs and consequently reduce policy costs for the included stakeholders and as such remove a potential barrier for policy acceptance.

- *Establishing a baseline:* The negotiations should include what industries and policymakers respectively can commit to in light of what the other party can offer in terms of commitments. As to avoid a BAU development, the NA should evaluate both best available technologies (BAT) and current technological status to provide a benchmark against which any sectoral or individual progress can be measured. This furthermore allows for the policymakers to assume a sound knowledge of the technical potential for improvements that exists. This also allows for a subsequent evaluation of the agreements.
- *Identify knowledge gaps:* The policymakers and business should set out in the beginning of the each round of the agreement cycle which information, or knowledge, that they prioritise as a means to facilitate specific learning more effectively. This includes clear definitions of what should be monitored and reported.
- *Agree on which level of transparency that is acceptable:* A potential barrier to engage in learning may be transparency and confidentiality concerns as the reporting on the subsequent measures taken may include information that may be sensitive (e.g., potential for improvements, costs of improvements, specific emission numbers, etc.) of which measures that has been carried out and are planned. To facilitate participation and trust there should therefore be a formal understanding of which reporting requirements that are feasible and how confidentiality is considered.
- *Common language:* There needs to be full clarity of what is discussed in terms of policy, technical, and economic aspects. While this may seem mundane, the problem can be exemplified in the case of the development of EU policies on carbon capture and storage where included stakeholders have used the terms “pilot plant” and “demonstration plant” without acknowledging the difference in terms differing need for operational permits, reporting requirements, economics, inclusion of full technical infrastructure, etc., leaving included stakeholders unsure of what exactly that was communicated (Stigson et al., 2009a).

The 2<sup>nd</sup> learning stage takes place during the policy operation of the NA. During this stage the key aspects are monitoring and periodic reporting. The operation stage includes:

- *Technical assistance:* To promote business learning and to contribute from public knowledge centres, a useful “carrot” is to offer free or subsidised technical services with the aim to, *inter alia*, develop management plans for improvement investments and monitoring systems. This is an efficient catalyst for PL as it focuses on the quality of the learning material that will be made available through the subsequent reporting.
- *Monitoring:* The monitoring standards are different in different countries and sectors, and the possibility to supply the numbers and figures that are related to the scope of the agreements are an important part of the learning process. There should thus be stipulations in the agreements to assert that the monitoring quality (and quantity) reaches a certain standard. It should also target the knowledge gaps that have been previously identified.
- *Periodic reporting:* The reporting requirements should not only target a final report at the end of the agreement cycle, as this could postpone learning with negative effects on the policy effectiveness and efficiency when operating under uncertain and rapidly changing conditions. To this end, reporting should occur on a regular basis. To minimise the administrative efforts this should focus on key aspects that has been identified as necessary for the agreement’s operation and learning priorities (i.e., to assert that the policy instrument is operating well in general and that important experiences are brought to the attention to policymakers without unnecessary delay).
- *Audits:* The included industries should face some form of audit in order to make sure that the reports are accurate and to deter any perverse incentives to damage the process. Otherwise negative learning could occur, or learning could fail to reach the anticipated levels.

The 3<sup>rd</sup> stage learning focuses on the evaluation that occurs at the end of the agreement cycle and aims to evaluate the effectiveness and efficiency of the policy. This is a natural part of any well-structured public voluntary scheme or NA, as to evaluate whether the incentive offered by the government should come into force (if offered at the end of the agreement), if the incentive should be reimbursed, or, if a penalty should be enacted. This includes:

- *Final report on progress*: The report should include the current status of emissions and energy consumption as well as past, current, and planned measures (also see transparency above). As such, it composes a main component of the learning process. This includes evaluating the progress against the initial BAU scenario to see that the actions taken are additional and whether the learning consequently is based on real progress and commitment by the industry.
- *Verification*: Some form of third-party verification is preferable to invoke trust in the process and the reports. Parallel to auditing this serves a purpose to ensure that negative learning on false reporting is avoided. Again, this is commonplace in public voluntary schemes and NAs where an incentive is offered by the government.

The 4<sup>th</sup> stage is a looping stage that feeds back into the learning regime and aims to provide stepwise improvements of the learning cycle. This reiterates the influence of agreement cycles, meaning that the trade-off between long agreement periods and rapid cycling of the learning stages must be evaluated. This aspect should therefore be included in the initial negotiations and policymakers should aim to provide more than one cycle when this is possible. If not, learning values may still be important, but the elevated merits of building on past experiences would be lost. Moreover, changes in the policy environment may reduce the value of past lessons, but NAs nevertheless include capacities to mediate such events through established learning arenas, and in the case that the agreement scheme is cancelled, learnt lessons would still remain. To this end, the final stage includes:

- *Incorporate learning values in the evaluations of agreements*: In relation to the evaluation of agreements rather than incorporating learning in the designs thereof (see above), a focus merely on the quantitative results of an implemented agreement fails to acknowledge the qualitative learning merits. As such, the learning itself should be evaluated in terms of whether the *knowledge gaps* has been filled and if the learning arena has functioned well. The latter includes identifying learning obstacles.
- *Highlight good examples and key messages*: Communicate good examples in the fourth stage learning as a means to provide trust in the process, which as discussed by Hemmati (2002) can reduce potential fears of engaging on the process. This also emphasises the role of education, or teaching, as an inherent aspect of a learning process. Furthermore, key messages should be communicated as to provide clarity of most important learning aspects for the individual stakeholders.
- *Resolve conflicts*: During the course of implementing an agreement it is natural that conflicts will occur between different stakeholders. These should be identified and discussed as to allow for resolving barriers that may reduce learning, policy effectiveness and efficiency, as well as possibly hindering the implementation of the agreement.
- *Learning is worth little without teaching*: Dissemination is a key to exploit the benefits of learning and the looping stage should therefore include discussions among the relevant stakeholders in the policy environment.

In relation to the different stages of learning, the study disagrees with the findings of by Glachant (1999) that negotiations only occur in the agreement formation and implementation phase (and in the latter case only between polluters). This view does not acknowledge the differences of VAs and the potential for negotiations and learning that may occur also in other stages and among a wider range of stakeholders. Figure 1 explains this through identifying that a dialogue, which is not limited to negotiations, will occur throughout the implementation of the agreement. This differing view however depends on whether analysing agreements that are collective, versus individual. On the contrary we argue that a joint policymaker-industry council should be established as a policy management facility. In this context, the Swedish Government has provided a good policy example through establishing such a council in relation to a public voluntary scheme on energy efficiency within the energy intensive industries (Swedish Energy Agency, 2009). This facilitates improved learning as well as management and the potential for high learning also in non-negotiated agreements. As argued by Ramesohl and Kristof (2002), learning is required to improve a situation where policies are inherently sub-optimised. This naturally also applies to avoiding further deterioration of policy effectiveness and efficiency. While this would be required as a parallel or additional process to policy instruments in general, these aspects are embedded in the NA processes, but only if there is an appropriate focus on 3<sup>rd</sup> and 4<sup>th</sup> stage learning.

To maximise the potential for learning, and hence the efficiency and effectiveness of the implemented agreements, there is a need for strong steering documents. This means that the policymaker, or a third-party organisation appointed by the policymaker, should take on a strong guidance role as to assert that a

functioning learning framework is facilitated, that affected authorities and higher political staffs are educated on the results, that stringency is increased if necessary to provide new learning of going beyond BAU, etc. The stringency and a progressive goal development are naturally also important as to avoid BAU. This is however not something that is unique for VAs but the low potential for change in lenient policies is a universal issue. As mentioned, VAs may nevertheless provide learning even in a BAU scenario if the knowledge base is improved through reporting and monitoring requirements or by other means; however this will always be less than perfect conditions for said learning. It would then play a supporting role, rather than a facilitative, to establish a better knowledge base for establishing other policies (such as tax levels, BAT requirements, etc.).

In contrast to Hansen et al. (2002), who identify that public voluntary schemes lacks efficiency in that they typically suffers from information asymmetry, it is here argued that more attention to the learning stages may improve also this type of VAs. The potential for PL of such VAs *will* be reduced due to lacking negotiations and consequently lower dissemination of attitudes and knowledge and thus potentially also reduced acceptance. However, the second to fourth learning stages may nevertheless be adjusted and implemented as elements of a scheme that is unilaterally developed by the policymakers. The PL potential can also be promoted by the installation of a business council that participates in the management of the agreement through feeding-in industry experiences in setting that is sanctioned by the policymaker. This has, as aforementioned, been the case for the Swedish public voluntary scheme for energy efficiency in energy intensive industries.

The suggested approach may seem to form a burdensome administrative process. This is admittedly true to some extent, but many of these stages are already present in a typical NA process and the added efforts are thus justified in light of the learning values identified in this study as well as by Ramesohl and Kristof (2002). The administrative processes also imposes costs for the included stakeholders, but this should not necessarily been seen as a major issue. Stern (2007) and others have identified that early action on climate change can reduce overall costs and to levels that are significantly lower than what would be the result of postponing action. The authors also firmly believe that emission abatement and climate change adaptation in any given case will impose significant costs and that these costs will have to be accepted on many different levels. If not, the development to more sustainable practices will be effectively hindered. The policymaker may however ideally mitigate the policy compliance costs for the industry through, for example, tax rebates and technological assistance, as well as assuming the costs for establishing an arena for dialogue.

## **CONCLUSIONS AND RECOMMENDATIONS**

This paper has analysed how VAs in general, as well as specific designs, have been evaluated in terms of their potential to induce PL through “negotiated learning”. Empirical evidence from literature reveal that this link is largely overlooked as it generally does not identify any learning values of implementing VAs. If learning is identified, it is not as a key aspect of VAs, and commonly referred to as a “soft effect” where the learning is not specified in terms of learning stakeholders, or refers to industry-industry learning on technology. Some initial work have however identified that PL may be promoted and that this value can be argued as significant. Due to the modest amount of literature on the link between VAs and PL, it is only natural that there is also a lack of recommendations on how to facilitate, or maximise, learning benefits. To this end, available suggestions for the design of VAs value, although not explicitly offered in a PL context, have been analysed from the perspective of how, and if, they can be transposed into recommendations on designing VAs as to affect the PL potential – hence operationalising PL within a VA design and management framework.

Against this background, the research represents first findings on developing a set of policy recommendations on how to operationalise and exploit the PL values of VAs as well as to contribute to the recognition of these values in evaluations of such policy initiatives. The recommendations should not been seen as aiming to provide a complete framework for VAs, but rather specifically targeting PL, and as such parallel to other recommendations on how to design VAs.

The study finds that while learning values may be provided by any form of VAs, increased stringency thereof have a causal relationship to improved PL possibilities as this is predominately facilitated by compliance, monitoring, reporting, and non-compliance penalties. As such, PL is most efficiently facilitated by public voluntary schemes and NAs. Through including the additional learning stage of negotiations, the latter singles out as especially suitable for this purpose. Within the NA policy cycle, learning should be targeted

through a number of initiatives and measures within different learning stages – *learning framework, policy operation, evaluation, and feedback* – that are embedded in the policy cycle. All of these stages include a continuous dialogue between policymakers and industry. VAs in the form of NAs provide important learning merits in the stakeholder interaction that both precede the operation of the policy instrument as well as during its operation. However, an essential learning capacity that is emphasised is the looping of the agreements to build on established learning arenas. This emphasises that negotiations and a collaborative environment should permeate the entire policy cycle and this can be fruitfully accomplished through the installation of a business council that feeds directly into the agreement management processes. While the additionality within NAs have been questioned, and while a policy instrument should have as positive characteristics as possible (i.e. promoting both abatement and learning), a NA that only promotes BAU would still have a positive characteristic in that it could promote PL. It is also important to highlight that learning will not occur, or will not be effective, without teaching. It is from a PL perspective essential that the lessons learnt are effectively utilised and disseminated. This does not only apply to the actual policymakers at the public agencies that are responsible for implementing the agreements, but also to political staff with responsibilities for policy framework agenda setting at higher levels.

The study also suggests that previous categorisation of VAs into bridging, supportive, and interdependent roles, should also include the *facilitative* role of PL that may be provided by NAs, as the categorisation otherwise fails to acknowledge an essential value thereof. One aspect that should be included in this context is the supportive role that monitoring and reporting can play in providing more knowledge into other policy design and management processes, such as more accurate allocation of emission rights.

The more careful that the VAs are designed and managed, as promoted through NAs, the larger the base for learning. This can be further amplified through being attentive to the learning values of the agreements and the potential thereof in the respective stages. While, more detailed negotiations, monitoring, and reporting naturally leads to increased administrative policy costs, such efforts however also lead to higher environmental effectiveness. This means that policymakers should be able to offer larger incentives for the industry to participate. And, importantly, if the learning merits both for policymakers and industry are acknowledged – and how these may increase as a result of a more detailed policy cycle – the added administration may be viewed as a smaller obstacle than would be the case if learning values are not acknowledged.

The value of PL can form a key constituent of an increased knowledge-sharing function within NAs. Especially when recognizing the role of industry plays as policy experts and abatement investors. This should be acknowledged in research and by policymakers. Hence, the key message is that policymakers should not see VAs only as a regulatory instrument – may it be self-imposed, designed by governments, or developed in collaboration – but as a tool for learning about the abatement investment environment in the industry. As such, they should by self-interest introduce a number of conditions on VAs that aims to further this potential benefit to aid the policymaking processes. Recommendations on how to accomplish this should be included parallel to other suggestions on how to design effective and efficient VAs.

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