



Communicating to local people and visitors the value of nature to the local economy

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Guidance Document

Communicating to local people and visitors the value of nature to the local economy

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Dear readers,

In January 2017 a partnership of 13 organisations from the Danube region started implementing the DTP Interreg project **“LENA – Local Economy and Nature Conservation in the Danube region”** which was co-financed by the European Union and had the aim to create shared know-how and shape policies on effective sustainable use approaches for protected areas (including Natura 2000 areas).

We, the partners, are proud of the positive changes we were able to achieve within 30 months of active cooperation. In order to reach out to even more people and help empower more entrepreneurs and small and medium size companies, including the managing authorities of protected areas, we wanted to develop something tangible that can be easily disseminated. Therefore, we decided to write four booklets, guidance documents, addressing how to develop capacity for sustainable use of natural and cultural heritage as an element of protected area management, how to increase market access of sustainably sourced natural products, how to communicate to local people and visitors the value of nature to the local economy and how to mobilise finances for conservation, nature based jobs and business models.

Their content is based on existing literature, life cases and experience, transnational knowledge shared and our project results. They offer concrete information, tips and tricks, each one on a specific topic with case studies and good practices from everyday business life connected to ecosystem services, sustainable financing and environmental resource use.

The four booklets:

- Developing capacity for sustainable use of natural and cultural heritage as an element of protected area management
- Increase market access of sustainable sourced natural products
- Communicating to local people and visitors the value of nature to the local economy
- Mobilising finances for conservation, nature-based jobs and business models are available in English and local languages at: <http://www.interreg-danube.eu/approved-projects/lena>

For more information, please contact representative LENA partner in the country of your convenience.



Content

1. Introduction	3
2. The importance of strategic communication in Protected Areas	6
2.1 “What” to communicate.....	7
2.2 “How” to communicate.....	9
2.3 Combining ecosystem services literature and practical handbooks on communication in protected areas	12
3. Theoretical concept and methodology	13
3.1 Theory: The Sender and Receiver Model of Communication	13
3.2 Methodological approach for the model.....	17
4. Model for successful communication.....	20
4.1 Determinants of successful communication	22
4.1.1 Objective	23
4.1.2 Message.....	24
4.1.3 Target Group	26
4.1.4 Resources.....	28
4.1.5 Communication Activities and Tools.....	30
■ Online media	32
■ Print media	34
■ Participatory events.....	36
5. Monitoring and evaluation	39
6. Summary and Conclusion	44
7. Annexes	46
List of respondents to interviews.....	46
Questionnaire	46
8. Bibliography.....	54

1. Introduction

“No matter who we are, or where we live,
our well-being depends
on the way ecosystems work”.

(Haines-Young & Potschin, 2010, p. 1)

During the last decade, the importance of protecting biological diversity and fostering nature conservation was increasingly acknowledged on international level. Underlying reasons therefore are the increasing challenges imposed on the nature, ecosystems and biological diversity. As a consequence, the former UN Secretary General, Kofi Annan, arranged the elaboration of a “Millennium Ecosystem Assessment” (MEA), a concept that evaluates the role of ecosystems on human well-being. This study was published by a number of researchers and experts in 2005 and resulted in an increased awareness of benefits and impacts of ecosystem services on biodiversity, the global economy and most importantly, human well-being. What is internationally recognized by now, is not only the need of nature conservation in this increasingly endangered areas but also the acknowledgement of various services produced by functioning ecosystems, from which we benefit from (Kettunen, Bassi, Gantolier & ten Brink, 2009, p. 20). Those benefits often derive from so-called ecosystem services defined as “benefits people obtain from ecosystems” in Protected Areas (PA) (MEA, 2005, p. V).

One direct consequence of this acknowledgement was the creation of a Natura 2000 network in Europe. This European network consists of specific PAs that follow the common goal of protecting biodiversity within these areas (MEA, 2005; TEEB, 2010). They provide a number of services and thus, benefits to the public and the economy through their ecosystems (e.g. water, food, recreation, mental health (Kettunen et al., 2009, p. 20-21). However, the provision of services is not determined to Natura 2000 sites. Thus, the broader term “Protected Areas” (PA) to which Natura 2000 sites belong, will be used in the following document.¹

The increased acknowledgement of the importance of nature conservation resulted in scientists increasingly addressing the issue. Thematically, international literature mostly focuses on the various ecosystems’ frameworks, services and benefits people have from PA. Scientists and international organizations widely acknowledge the need for communicating these values and benefits to the people by disseminating information about PAs (Chan et al., 2012; De Groot, Wilson & Boumans.2002; De Groot, Alkemade, Braat, Hein & Willemen.2009; De Groot, Fisher & Christie, 2010; European Union, 2013; Haines-Young & Potschin, 2013; Martín-López, Gómez-Baggethun, García-Llorente & Monte, 2013; MEA 2005; TEEB. 2010). However, little effort has been done on transferring these theoretical assumptions and concepts into the practical work of PAs although successful nature protection works under the premise of strategic communication management

1. A protected area “is a clearly defined geographical space, recognized, dedicated and managed, through legal or effective means, to achieve the long term conservation of nature with associated ecosystem services and cultural values” (IUCN, 2008).

(Schreiner, 2005). However, information about ecosystems and the services they are providing is often missing or very limited. As a consequence, in many cases individuals do not perceive the nature as valuable (Scholte et al., 2015, p. 68). Thus, it is important to address this observation and to reach those people who benefit from ecosystems the most.

Extensive research on both, literature on ecosystem services and handbooks for effective communication management of PAs, reveal that both streams are always addressed separately from each other: On the one hand, scientific literature focuses on the question how to value ecosystem services. This bears the risk of not providing precise practical implications for people working in PAs and thus, remains often too scientific to be applied in practice (Daily et al., 2009; De Groot et al., 2010). Besides, information and results provided by experts are often too subject-specific and complex resulting in a misleading communication to the public (Salmon, Priestley & Goven, 2017; Varner 2014). Dissemination of information on how people living in or close to PA benefit from nature, how the nature contributes to our well-being and how we can easily gain further benefits is rare or often insufficient.

On the other hand, handbooks and toolkits on communication management in PAs are often too vague and solely refer to the need of elaborating a communication strategy and thereby dismiss relevant information on how to transfer messages, how to reach target groups and what channels are most effective. Precise information on those links, namely “what to say”, “to whom”, “through which communication channels”, is missing. People can only appreciate and value PAs, if they are aware of the benefits resulting from nature. Consequently, this requires effective communication of the benefits using the appropriate means of communication.

For this purpose, this document will bring both together. Insights from extensive discussion about the values and benefits for locals and visitors resulting from PAs and a guidance on how to communicate these values and benefits to the people in the most effective way. Based on this, we aim to combine what has not been combined so far: theoretical insights from scientists together with practical implications from the field of strategic communication. Following this approach, we will elaborate a step-wise instruction on how to approach the following leading questions of the document:

Leading questions of the guidance document:

- What are the values and benefits of PAs that should be stronger communicated to the locals and tourists?
- And how can these values and benefits be communicated in the most effective way?

These lead to a couple of sub-questions that we will be examined in this document. Some of them are for example: What are the benefits and values of nature? What is the overall objective to be communicated (e.g. raising awareness, changing behaviour)? To whom to target the communication effort? What is the key message to be delivered to the particular target groups? Which communication tools are most effective for reaching the target audience? The aim is to move beyond theoretical ecosystem frameworks and general aspects of communication management. Hence, the purpose is to provide useful tips on methods and techniques on how to communicate the value of nature to

locals and visitors in PAs and to inform them about the benefits of ecosystem services available in their region.

Our knowledge and insights are based on an extensive literature review (e.g. on ecosystem services and functions and the various resulting values and benefits of PAs) and from practical handbooks and documents on PR and communication management in PAs. Besides, we conducted interviews with representatives or contact persons from 9 PAs along the Danube. Those interviews provided valuable insights into the work of PAs in practice, their organizational structures, the role of communication management but also challenges they are facing with different population groups. Furthermore, PA managers identified the fields in which they would need assistance and how this document handbook could contribute to providing an added value to their work in practice. Given that most PAs or Natura 2000 sites do not have the resources to elaborate a comprehensive communication strategy (e.g. due to the lack of budget or expertise) (MEA, 2005, p. 97), this handbook can be considered as guidance on how to transfer and communicate a message to the target group in the most effective way. The present guidance document is meant mostly as a practical guide for practitioners such as PA managers or contact persons in charge of communication. By presenting different determinants for a successful communication together with a step-by-step instruction and good practices from the field, we hope that this document will help practitioners to find the best approach or strategy as well as which tools are most effective for reaching the respective target audience, such as locals, tourists or stakeholders.

Take home messages

- Identify your overall objective of your communication activities (*not to be mixed up with the message!*) and define the desired outcome
- Your message should be easily understandable especially to people not actively engaged in the field of nature conservation. Keep it simple and relate your message to issues people understand or can identify with!
- It is all about target-group oriented communication! Identify the target audience ("who do you want to address?") before choosing a communication tool
- Consider the available resources (time, money, know-how) in the first step
- According to the available resources, choose the appropriate communication tool in the second step which is deemed suitable for reaching your target group
- Continuously monitor and evaluate the effectiveness of your communication activity!
- Be aware: The communication of values is long-term task and process that takes numerous attempts before the benefits (e.g. socio-cultural values of PAs) of nature are acknowledged and internalized by the target groups

Taken together: communication always needs to be tailored to different circumstances and situations – including the overall objective, the target audience, the key message, the available resources and the communication tools. This process needs to be run through over and over again and adapted if necessary.

2. The importance of strategic communication in Protected Areas

Leading questions of this chapter:

- Why does communication matter, especially in PAs?
- What types of values of nature and ecosystem services exist according to the (scientific) literature?
- Which approaches for addressing the question of how to communicate the value of nature exist according to communication handbooks?

PAs are geographically defined areas where nature conservation and protection of ecosystems are the main goals (IUCN, 2008). It is widely acknowledged by international actors including scientists, politicians and practitioners from the field of environmental protection that ecosystem services produced in PAs have a strong impact on human well-being (Haines-Young & Potschin, 2013; MEA, 2005). However, this alone does neither guarantee the effective management and conservation of PAs nor the acceptance and willingness of the local people to protect those natural assets.

In order to gain political and public support for the conservation of nature, PAs need to be effectively managed by authorities, institutions or organizations that maintain the services produced by PAs from which the public, the local economy and above all, the nature benefits. However, PAs and their managing institutions can only be successful in practice when having a transparent and communicative information policy. This is due to the fact that nature conservation is a social and political communication task (Adomßent, 2005, p. 430) and thus, based on a holistic approach that goes beyond the dominant ecological perspective (Jobstvogt, Townsend, Witte & Hanley, 2014; Haines-Young & Potschin, 2010).

Communication in a nutshell:

- Communication is a process
- Communication is about exchanging information
- Communication is not one-sided: two-way dialogue!

Regardless of the point of view, humans always play an essential role in nature conservation. Thus, an effective communication strategy can be crucial for successfully protecting the nature (Schreiner, 2005; WWF, 2007). The term “strategic communication” can be defined as a measure “planned to accomplish a purpose and targeted to a particular audience or audiences” (Hesselink, Goldsteni, van Kempen, Garnett & Dela, 2007, p. 231). The term ‘strategic’ underlines the importance of adjusting communication activities continuously to the respective situation, depending on the particular communication

goal such as increasing (subject-specific) knowledge, changing attitudes, beliefs, opinions or behaviour or raising awareness for the nature (Hesselink et al. 2007, p. 235). Given that communication serves as process of transferring information, ideas or knowledge, strategic communication management and communication activities serve as means and channels through which people’s knowledge and attitudes can be influenced or

changed (WWF, 2007, p. 3). Thus, communication can help to achieve the following goals in the field of nature conservation (AdomBent, 2005, p. 430pp.):

- Creating **acceptance** for the needs and measures of nature conservation
- Changing **attitudes** and actions taken by humans
- Influencing political **decision-making processes**

In the context of nature conservation, communication activities can be used for educational purposes (CBD, 2004). Developing communication activities to educate the public is one way of effectively showing them how they can act and behave in a nature-friendly way and thereby, protect the environment. This was also confirmed by a study on wetland restoration in Persina Nature Park (Scholte et al., 2016, p. 467). Results based on interviews with locals, farmers and fishermen revealed that gaining public support generates communities' commitment towards the sustainable use and management of wetland restoration. Thus, education on sustainable development and nature protection needs to be understood as a process of lifelong learning that is based on educational activities, experiences, information and the acquirement of knowledge (Schreiner, 2005). Following this logic, communication serves as mean to increase awareness or gain public support, acceptance and acknowledgement for the PA (Hillebrand & Erdmann, 2015; MEA, 2005; Stolton, 2009). This becomes of particular importance in times of increased pressures and danger threatening the nature, biological diversity and ecosystems (MEA, 2005; Halpern et al., 2008). However, communication management in the field of nature conservation often suffers from a lack of required resources such as staff or budget (MEA, 2005, p. 21). Therefore, the choice of communication tools is often inevitably limited.

2.1 “What” to communicate

Nature conservation and ecosystems are widely perceived as less-developed areas that often hamper the economic development of a region at the expenses of the locals (Brockington & Wilkie, 2015). The clash between the overall objective of preserving biological diversity on the one hand and the resulting disadvantages for the local people on the other is often referred to as the “park vs. people debate” in conservation literature (Scholte et al., 2016, p. 468). It shows two goals described as being competitive: protecting biological diversity on the global level versus enhancing local's existence (Southworth, Nagendra & Monroe, 2006; Minter & Miller, 2011). However, studies indicate that wages are not lower and that the unemployment rate is not substantially higher in PAs (Umweltdachverband, 2016). Against all expectations, tourism even shows an upward trend in nature reserves (ibid.).

International organizations and literature highlight a range of ecosystem services that PAs produce from which the nature, societies, economies and consequently, humans benefit (European Union, 2013; Haines-Young & Potschin, 2010; Stolton, 2009). Ecosystem services do not only provide material benefits and goods important for our daily lives such as food, wool, medicines. They also provide other, not directly visible benefits – such as protection from flooding or recreation opportunities (Haines-Young & Potschin, 2010). As categorized by MEA (2005, p. 100pp.), ecosystems refer to four particular categories of services that benefits humans.

Table 1: Overview on the four different categories of ecosystem services according to the MEA (2005)

Provisioning services:	Material or provisioning services such as food, fuel, water
Regulating services:	Describe the way ecosystems regulate processes such as regulation of floods, drought, land degradation and disease
Supporting services:	Act as precondition for the production of the other services, including soil formation and nutrient cycling
Cultural services:	Relate to recreational, spiritual, religious and other nonmaterial benefits as well as enjoyment and tourism

Based on these categories, ecosystem services can have both, direct (e.g. provision of food, fibre, fresh water) and indirect (e.g. regulation of air, water, climate) impacts on human well-being (European Union, 2013; Martín-López et al., 2013). Moreover, ecosystem do not only provide material services but also non-material values such as mental health and aesthetics from which humans benefit (Schuster, Blendle & Erdmann, 2005). Nevertheless, it needs to be considered that these services vary across Natura 2000 sites or PAs depending on the location and the given infrastructure in those areas (European Union, 2013, p. 23). It is generally assumed that people who are aware of ecosystem services will be more likely to support the protection of the environment (Scholte, Todorova, van Teeffelen & Verburg, 2016, p. 467). The presumption was already stressed in the early 1980s, where ecosystems have been presented as pedagogical tool contributing to raising awareness of the manifold benefits that ecosystems provide to humans and which should be protected (Ehrlich & Ehrlich, 1981; Ehrlich & Money, 1983). Coming back to our guidance document, one goal is also to extensively outline what values of nature can be communicated and what types of benefits exist that result from the nature and have a positive impact on humans' life. Altogether three types of values resulting from nature were internationally acknowledged in the literature and by decision-makers (MEA, 2005; TEEB, 2010), namely ecologic, socio-cultural and economic values. Those values implicitly describe the first step of successful communication, namely the question of "what" to communicate and explain how humans benefit from them.

An explanation of each type of value including examples is provided in the following table:

Table 2: Overview on the ecological, economic and socio-cultural values (MEA, 2005; TEEB, 2010)

Ecological values	Economic values	Socio-cultural values
Elements relevant for maintaining the functioning of ecosystems in the long term, such as biological units and thresholds	Monetary units, divided into market and non-market values	Values people attach to an ecosystem service, primarily in non-monetary terms

For instance: sustainable land-use (agriculture, forestry, fishery, hunting), sustainable development of rural areas	For instance: sustainable tourism and transport, regional marketing, regional development, employment	For instance: recreation, health, well-being, quality of life, environmental education, regional and national identity
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The values go beyond the generally recognized economic values and moreover, conceptualize this approach in a holistic way, including also socio-cultural and ecological values (Jobstvogt et al., 2014, p. 2). These values of PAs can provide further benefits for the local community and especially the economic sector, such as the attraction of tourists who support the local economy by spending money or the attraction of further investment which creates new jobs or improves quality of life in the respective PA (European Union, 2013, p. 52). While economic values primarily refer to monetary benefits, socio-cultural or ecological values are more related to the intrinsic motivation to protect the nature, also for their own well-being. However, it is important to take into account that “the social value is based on people’s perception and preferences. It might not be based on a comprehensive understanding of ecosystem functioning and cannot replace biophysical assessment of ecosystems and ecosystem services” (Waltz et al., 2017, p. 4). This goes along with Agbenyega’s et al. (2009) assumption, according to which the society needs to have a better knowledge and understanding of such ecosystem services in order to be able to appreciate them. This in turn, requires the visibility of those services and the communication of their contribution to human well-being in order to raise the nature.

If humans understand how they can protect nature and benefit from it in the same time, they will be more likely to understand the interconnection and feel included.. As outlined by Emde (2003) and based on the rational-choice approach, the sustainable use of nature is the most important reason for protecting nature. Thus, the benefits people perceive from nature are crucial and should be communicated in the most appropriate way. Following this logic, the civil society needs to be also aware of how they are affected by negative developments damaging the nature.

2.2 “How” to communicate

Experts from the nature protection field have often mixed positions regarding how to communicate nature protection and the value of nature to the public. Consequently, it is important firstly to determine what kind of message should be communicated. Secondly, it is crucial to figure out how this message can be best delivered to the target group (through the appropriate use of a communication tool) in order to be successful and gain the people’s acknowledgement.

However, it is important that communication moves beyond the scientific view on nature conservation and benefits resulting from ecosystem services. Otherwise one is running the risk of only providing subject-specific information to which the public does not relate (Schuster et al., 2005, p. 407pp.). Hence, if communication is too academic, the majority of the population may not feel addressed or included given that the content is not easily understandable (ibid.).

Nature is generally perceived as something positive that creates “natural capital” such as wealth, recreation or quality of life. However, conflicts or negative attitudes towards PAs mostly result from the fact that nature reserves have been often established without the consultation and the approval of the public (e.g. landowners) (Hillebrand & Erdmann, 2005, p. 9). Due to this top down approach, PAs often suffer from a bad image resulting from the accompanying restrictions, rules and regulations imposed on people’s life and their work (Emde, 2003, p. 68). Additional challenges PAs are facing in the broader social context is that locals are often not even aware that they are living in a PA or they do not exactly understand what the underlying intention of the nature reserve is (Vidal & Grenna, 2004). Therefore, it is important to emphasize the benefits people can get from nature and discuss possible actions with the locals. Moreover, this requires to stop describing nature as something “vulnerable” and thus, to emphasize the strength and positivity of nature including the benefits and values resulting from a proper protection of the natural environment. The language style as well as creating a strong and positive message present important factors (Michelsen & Godemann, 2005), which will be further outlined in [chapter 4.1.2](#).

In addition to that, Stroll (1999) highlights three potential scenarios that provoke conflicts resulting from communication barriers. The author also outlines how to counteract these conflicts:

- **Lacking interfaces of communication between PAs and the public solely**

Risk: PAs and their management departments remain very abstract due to the missing links between the information provided and the society

Solution: Direct communication is a crucial factor for counteracting this problem (Hillebrand & Erdmann 2015, p. 27)

- **Selective fishing of information: only if information (including the source of the information) fits to the own values and attitudes, information will be accepted**

Risk: Information that would foster acceptance would be filtered or not even perceived (Sieberath, 2007, p. 18)

Solution: Addressing this issue through the use of communication channels that do not rely on third parties

- **Group processes: Individuals often do not base their opinion towards the PA on personal experiences but instead, take the view of the own social group one identifies with (e.g. the community in a village)**

Risk: If the group one identifies with has negative attitudes towards the PA this might also influence individuals who have a neutral or positive opinion towards nature conservation due to pressure and the existing social norm in the group

Solution: Mobilize the groups and disseminate information to the whole group thereby providing room for exchange and discussion

As another approach that aims to contribute to improving attitudes towards PAs, the concept of “nudging” has been developed. “Nudging” can be seen as a concept or strategy

on how to communicate the values of nature to the locals and visitors and how to raise awareness and change behaviour in the natural environment. It is generally described as “tool for sustainable behaviour” (Mont, Lehner & Heiskanen, 2014). This strategy is not only applicable for PA managers but can also be used by policy makers or representatives of the public (Mont et al., 2014, p. 7). The goal of the concept is to put individuals in a situation where they make intuitive and automatic choices that have a positive impact on the natural environment based on the provision of simple information (Mont et al., 2014, p. 12-13). This refers to the basics of two systems of thinking elaborated by Nobel prize Winner Kahneman (2011):

Table 3: Two systems of thinking by Kahneman (2011)

System 1	System 2
<ul style="list-style-type: none"> ■ fast and automatic thinking ■ often part of our daily life ■ Example: taking a shower 	<ul style="list-style-type: none"> ■ slow, deliberate and conscious thinking ■ requires more capacity to make a decision ■ Example: buying a home

Most of the existing tools and concepts for changing people’s behaviour on nature protection rely on System 2 which is based on the provision of a wide range of information. However, studies reveal that this often is not sufficient for changing human’s behaviour in the long-term especially if the the message has not been communicated effectively (Mont et al., 2014, p. 14). Thus, based on the process of System 1, nudging emphasizes four tools for influencing individual behaviour: firstly, information should be framed and kept simple, focusing on the most important facts. Secondly, it is important to act in an environment where changes can be achieved. Thirdly, people are often acting by default but not because not being aware of their actions.. It is important to highlight these defaults and lastly, humans will be only willing to change something if the topic is important to them or if they perceive it to be important (Mont et al., 2014).

Taken together, “(n)udge is about giving information and social cues so as to help people do positive things for themselves and society” (John et al., 2013, p. 9). While these tools seem to be reasonable, often also derived from cognitive and behavioural theory, their impact cannot be so easily predicted in real life due to the number of further circumstances which society and the environment people share. Moreover, the actual impact of nudging is expected to be very limited (Olstadt et al., 2014) or not applicable to every societal group in the long-term (Mont et al., 2013). Moreover, it can be also questioned whether people act according to system 1, namely fast and automatic thinking in the complex field of nature conservation. Nevertheless, the concept does not have to be generally rejected since “the largest promise of nudge is perhaps in helping design other initiatives better and in improving the effectiveness and efficiency of policy tools and the speed of their implementation” (Mont et al. 2014, p. 69-70 after Avineri & Goodwin, 2010). Thus it can be perceived as complementary to other concepts addressing the question of how to communicate the value of nature to the society.

Whatever communication intends to achieve (as mentioned above, e.g. dissemination of information in order to raise awareness), complex issues such as changes in attitudes and behaviour towards nature conservation can only be achieved in the long-term (Emde, 2003, p. 68).

2.3 Combining ecosystem services literature and practical handbooks on communication in protected areas

The review of both literatures, scientific literature on ecosystem services and practical handbooks and toolkits on communication of nature conservation, reveals the importance of following a joint approach that incorporates both: Firstly, it is important to note the recognition of values of ecosystems and the acknowledgement that target groups perceive the benefits of PAs differently. Secondly, it is crucial to turn these insights into practice by effectively managing communication activities in PAs and adapting the communication work to the circumstances of the PA and the target audience. In the context of ocean conservation, for example Jobstvogt et al. (2014, p.1) “believe that successful communication of ecological knowledge is the key to a wider public support”. This is in line with the findings provided by Bateman and Mawby (2004) on the valuation of woodland restoration. The authors indicate that gaining information is positively correlated with higher values for woodland conservation (ibid.). Nevertheless, they also argue that a raised awareness for ecosystem services alone does not necessarily result in higher valuation of ecosystem services. Instead, it is essential that the public directly experiences the ecosystem services by themselves and thereby interacts with the nature.

Most importantly, awareness for nature conservation does not only result in positive attitudes and beliefs towards the nature but also in increased support for sustainable development, policy changes, effective resource use and management of PAs in order to secure the natural capital (e.g. Aronson et al., 2007; De Groot et al., 2010).

However, how to approach the affected target groups, such as the public, decision-makers or other stakeholders and what kind of information would be relevant for them, is often neglected. This is where our guidance document establishes relations: our goal is to address both questions, namely what to communicate to local people (= the message that emphasizes the value of nature) and how to communicate these messages (= the most effective communication tool to reaching the target audience) and thereby to bring light into the dark and add a new perspective to this very complex and mostly scientifically addressed issue. Thereby, we hope to extend what has been discussed before in literature and outlined in communication handbooks. Our aim is to elaborate a document that will provide guidance to PA managers and people responsible for external communication in the field of nature conservation. With this we hope to offer something that has not been tackled so far and also a document with a strong practical component that will be applicable in practice.

Leading questions of this chapter:

- How do communication processes work in practice?
- Under what conditions is communication expected to change or influence environmental behavior?
- How was the elaboration of the guidance document approached methodologically?

3. Theoretical concept and methodology

The most suitable theoretical model for understanding communication processes in general, is the “Sender and Receiver Model of Communication” by Shannon and Weaver (194). This model can be applied to any situation where communication is taking place (regardless of the context). In the subchapter this model will be supplemented by a heuristic threshold model for environmental communication elaborated by Kleinhüchelkotten (2002). Together this will serve as theoretical basis for the determinants elaborated in [chapter 4](#) that will bring this theoretical concept into practice and reveal determinants that should be taken into account when communicating the value of nature to the public.

The second part of this chapter addresses the methodological approach that we used. It is important to have a baseline and understanding of the current situation of communication management in PAs. This goes beyond simply looking at the values of nature emphasized in the literature and instead, provides the basis for in-depth knowledge into the work of PAs in practice. It will help to gain insights into questions such as how sophisticated is strategic communication management in PAs? Do PA managers have enough resources for effective communication? What kind of problems do they face? Which communication tools are common and what types of target groups do they address?

All these insights were important to understand the daily work of PA managers and to adapt this document to the real needs of PA managers. The content and results of the interview will be further presented in [chapter 3.2](#).

3.1 Theory: The Sender and Receiver Model of Communication

Communication as such is not automatically effective or successful. Neither does it automatically result in the desired outcome such as changing humans’ behaviour or attitude through the transmission of information. As a consequence, it is of high importance to reduce risk and barriers that could end in misleading communication or even have the opposite effect, such as fostering doubts regarding value of nature among the citizens.

Whenever people are communicating, they represent a sender and a receiver, two roles that work as mandatory elements in a communication process (Shannon & Weaver, 1949). The goal of communication is to achieve an understanding between the sender and the receiver which can be only reached if the sender succeeds in transmitting the information in a way that is comprehensible for the receiver (Röhner & Schütz 2016, p. 15ff.). In order to understand how to communicate effectively, the well-known and commonly used “Sender and Receiver Model” by Shannon and Weaver (1949) provides the theoretical framework. Thus, it ensures important insights into the underlying mechanisms of communication processes. In the following, the main elements of the communication model shown in figure 1 will be explained:

- **Sender:** Crucial for every communication process is a sender. The sender is typically the person that is transmitting a message to a receiver
- **Receiver:** The receiver is the person (or multiple receivers) that receives the message
- **Channel:** The communication channel ensures the transmission of the decoded message from the sender to the receiver and serves as medium for disseminating the information
- **Encode:** The information transmitted from the sender is converted into a code
- **Decode:** The receiver decodes the message in order to understand its meaning

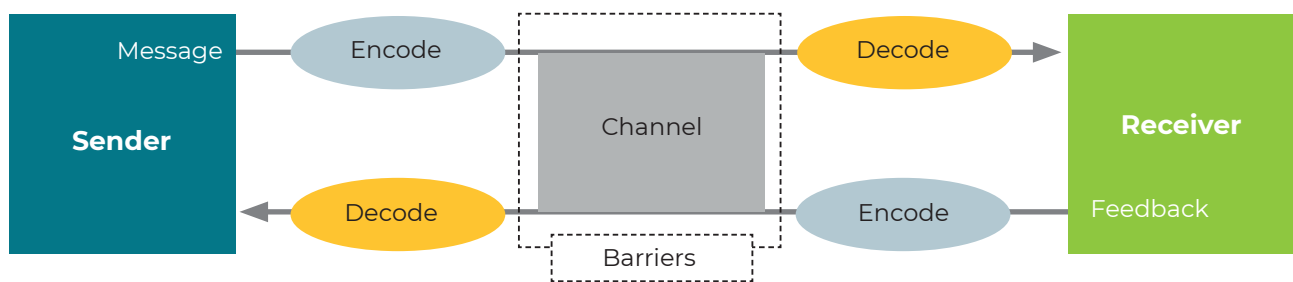
The process and how these single elements come together and work based on the logic provided by the sender and receiver model is described in the following:

According to Shannon and Weaver (1949) communication always involves a sender and a receiver (or multiple receivers) who convey information through a communication channel. Thus, it is the sender who decides what to communicate: an emotion, an opinion, an expectation, a desire or just a simple (factual) information. In order to translate the thoughts, the sender needs to encode the message to be transmitted (language, written language, body signal). For this purpose, a message is transmitted by the sender through an appropriate communication channel to the receiver (or multiple receivers). Consequently, the choice of the communication channel and the success of decoding the message relies on the sender. After transmitting the message through a communication channel, it reaches the receiver who hears, reads, feels or sees the message. The receiver then has to decode the message (the information being conveyed) to understand its meaning and significance. Only then, the receiver is able to interpret the message and to react to it. The feedback from the receiver indicates whether the message was clearly understood. If not, communication provides the possibility of clarifying misunderstandings in the communication process and the message of the sender. The entire process based on the logic elaborated by Shannon and Weaver (1949) is illustrated in figure 1.

Nevertheless, errors can appear in every communication and at any stage and thereby disorder the process. Hence, it is crucial to avoid any risks, barriers or misunderstanding for ensuring effective communication (Röhner & Schütz, 2016). These barriers include for instance, a lack of attention or interest, over-complicated or unfamiliar use of language, physical disabilities, language barriers and cultural differences.

As stated above, successful communication is not necessarily the rule. This also corresponds to environmental communication, a field that is highly sensitive, experienced and perceived by every individual subjectively and emotionally charged. Communication barriers as well as lack of willingness to understand the message or to internalize its' meaning may present further challenges to successful communication. For this purpose, understanding successful communication in this special field is crucial and can be done by referring to the heuristic threshold model of environmental education by Kleinhüchelkotten (2002). This model outlines a simple logic of crossing different thresholds in order to achieve a long-term change of environmental behaviour.

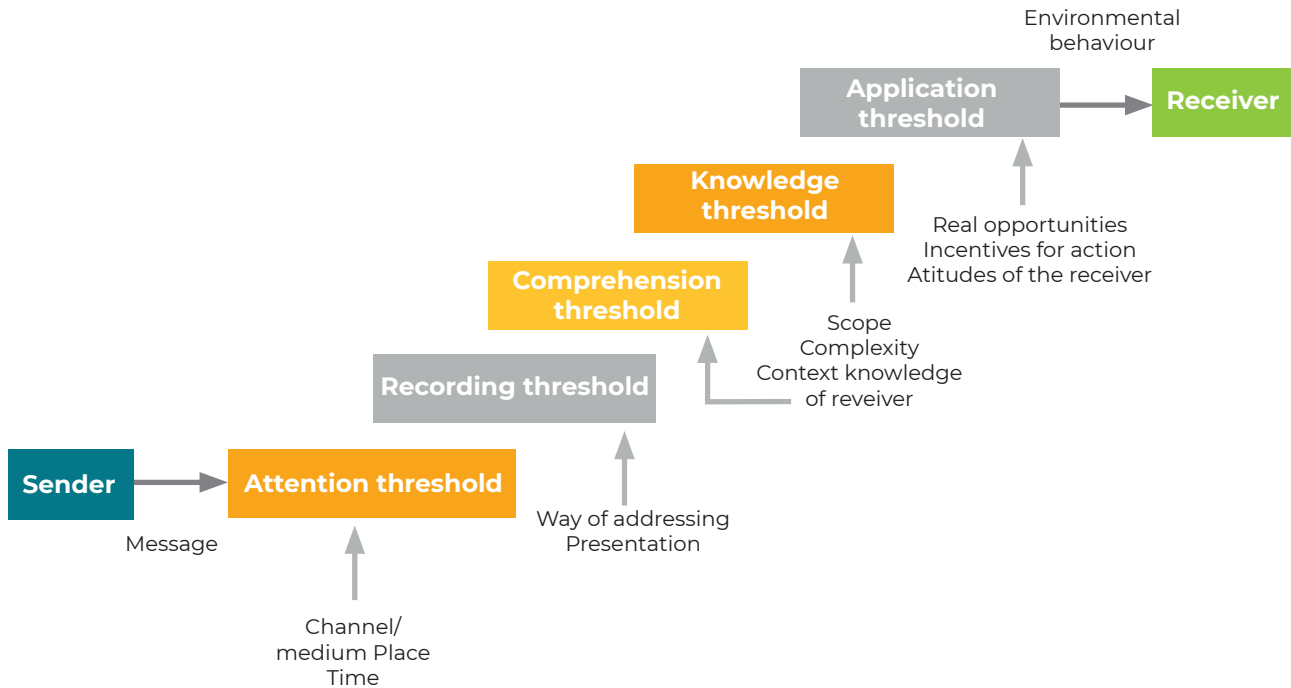
Figure 1: The Communication Process according to Shannon and Weaver (1949)



This model includes the role of the sender and receiver from Shannon and Weavers (194) model. Following this logic, the sender transmits a message. However, this message needs to overcome different thresholds until it finally reaches a change in the environmental behaviour. The first step addresses the so-called “attention-threshold”. In order to overcome this threshold, the appropriate communication channel at the right time and right place needs to be used in order to transmit the message to the receiver (the target audience). If this step is reached, the attention of the receiver is successfully gained. The next step is the “recording threshold”. Whether this threshold is crossed depends on the appropriate way of presenting the message and the way this was addressed to the particular target audience. These first two thresholds are closely linked to the question of how to communicate a message and will depend on the right and appropriate choice of the communication channel and tool for transmitting the message. Only if the right tool is used, the attention of the receiver will be gained and the message will be noticed.

The next steps refer to overcoming the “comprehension threshold” and “knowledge threshold”. Both thresholds are interlinked and depend on the scope of the message, its’ complexity but also the context knowledge of the receiver. Being familiar with the overall topic of the message or having background knowledge but also formulating the message in a comprehensive way (regarding the used language) will increase the likelihood of crossing those two thresholds. Those two thresholds are closely related to the question of what to communicate and the creation of the “right” message to the target group one wants to address. The last step refers to the ultimate goal that will most likely result in a change or a positive environmental behaviour: the application threshold. At this stage, the receiver is expected to have heard, understood and agreed on the message but still would need to cross the application threshold. A precondition for crossing this line is that the receiver accepts the message and even internalizes it which can result, for instance, in becoming active or changing attitudes and opinions (Kleinhüchelkotten, 2002, p. 13ff.).

Figure 2: The heuristic thresholdmodel of communication based on Kleinhüchelkotten (2002)



To sum up, the logic of this process can be easily described as follows:

- To speak does not mean that one will get heard
- To hear does not necessarily imply that the person understands the message
- To understand an information, does not imply that one agrees with it
- To agree with a message does not directly result in applying it
- And lastly, applying the message does not mean it is internalized (Michelsen & Gode-mann, 2005, p. 407ff.).

In the field of environmental communication this implies that the topic related to the nature and protection needs to exceed various thresholds until the receiver adopts what has been said (the message). Therefore, the goal of the message is to transfer the information in a way through which the thresholds will be most easily crossed. However, it is important to understand that this is a long-term process. It is very unlikely that this change in behaviour will be reached just with one communication attempt. Thus, communication is a long-term process that requires many attempts, continuous adaptation of the message and the used tools.

How PA managers or those working in the field of environmental protection can pursue an effective approach on communicating the value of nature to the citizens and the tourists, will be outlined in the model for successful communication in [chapter 4](#).

3.2 Methodological approach for the model

Existing toolkits and handbooks on effective communication in the field of environmental protection often provide extensive information about what to communicate and especially, how to communicate the messages. Nevertheless, they often lack the reference to the practice, resulting in a number of unsolved questions, such as: What is the work of PA managers in practice? What role does communication (management) play in PAs and does it play a role at all? What problems do they face? What communication tools do they commonly use? How does the public perceive the value of nature?

Writing a communication handbook that advises how PA managers or responsible contact persons can effectively communicate the value of nature presupposes an understanding of the current situation in PAs. For this purpose and in order to move beyond existing literature and communication handbooks (as outlined in [chapter 2.1](#) and [2.2](#)), surveys have been conducted in the beginning of 2018. Those surveys were carried out with PA managers or responsible persons from the municipalities that work closely with the PAs in their region. This approach provided the advantage of gaining insight into the communication work in PAs in practice as well as the challenges and obstacles PAs are facing.

As a reason thereof, the Danube Office Ulm/Neu-Ulm as project partner in the project LENA (Local Economy and Nature Conservation in the Danube Region) developed a questionnaire. The goal of the interviews was to collect further information and also to gain fruitful insights into the fields where PAs and their (communication) managers need further practical advices and guidance on how to transmit their message in the most effective way to their target groups. Altogether nine surveys with PA managers or employees from municipalities closely working with PAs from seven European countries were carried out. Some of the surveys were based on face-to-face interview, other surveys were send by to PA managers via email. In order to gain an extensive overview, the survey addressed the following issues:

■ Responsibilities

Who is responsible for communication-related issues in the PA and does such a position exist at all?

■ Communication management

What role does communication play in the daily work? Is there an elaborated communication strategy in place? What is the overall communication objective?

■ Value of nature

What are the benefits/values of nature (e.g. social/economic/environmental) that should be stronger communicated?

■ Target groups

Which target groups are you addressing with your communication activities?

■ Communication tools

What kind of tools do you use? Do you use different tools for different target groups?

■ **Conflicts and challenges**

Do you experience conflicts and challenges with the public and if so, what are the reasons for this?

■ **Good and bad practices**

Successful/unsuccessful activities or campaigns

■ **Evaluation and monitoring**

Is there a systematic evaluation or monitoring of the communication activities in place?

■ **Necessary and relevant information**

Which kind of information would you need in order to improve your communication work and in which fields do you lack the expertise?

An overview of the participants and the full survey is listed in the [annexes](#).

The results of the interviews brought a couple of important findings that were identified across PAs and countries. The guidance document was strongly adapted to those findings and the needs of the PA managers. The most important results are the following ones:

■ **Communication management is rarely institutionalized in PAs**

- PAs often neither have an established communication strategy nor a person that is primarily responsible for any issues related to communication or a PA manager at all (often a result of lacking budget for qualified staff)
- Respondents stated that it would be helpful to have further information on how to communicate a message most effectively to the locals

■ **Communication tools and activities are used only to a limited extent**

- The results show that workshops, press releases, promotion videos or guided tours are common communication activities and tools in PAs while social media plays a smaller role in comparison
- Information as well as expertise on the appropriate use of communication tools is limited
- Good practices from other PAs for successfully communicating the benefits of nature is deemed necessary

■ **Communicating the “right” message is crucial**

- Respondents agree that it is important to communicate the values of nature, including the rights of locals and tourists but also obligations and rules for respecting and protecting the nature
- The “message” (what to communicate) differs across target groups and needs to be carefully developed before transmitting it to the audience
- Communicating the value of nature is a process of building trust and a long-term task that requires high quality and regular communication activities

- **The public often has a mixed attitude towards PAs**

- Most PAs face problems and challenges resulting in a difficult communication with local citizens and tourists
- Local citizens often feel economically disadvantaged due to the strict restrictions, regulations, bureaucratic burdens, rules and unsatisfying subsidies
- PA managers experience show that locals ignore and disregard the nature or use natural resources inappropriately as a result of a lacking interest in protecting the nature
- Other PAs reported that they have conflicts with citizens that violate the rules and carry out illegal activities in PAs (e.g. fishing in areas where it is not allowed)

The results of the surveys were taken into account for the elaboration of this guidance document and the development of a model that is adjusted to the needs and the demand of PAs on communication issues. This model will be presented in the following chapter, including its determinants, good practices from other PAs as well as useful recommendations and checklists that can be easily taken into account in practice and applied by PA managers.

4. Model for successful communication

Leading questions of this chapter:

- How to design communication activities strategically?
- How to communicate a message most effectively?
- What are the single determinants and steps for successful communication?

Effective and successful communication is about having a clear objective and knowing what the particular communication activity is aimed to achieve. It is about what the message communicators want to transmit, about the target group one wants to reach and the effective use of resources and communication channels tailored to the audience. Thus, for every PA, communication is an essential element of achieving goals and communication activities serve as mean for disseminating information, messages, appeals, invitations and knowledge.

The model that was elaborated for the purpose of this guidance document was strongly aligned to Lasswell's model of communication (1948). According to him, a "convenient way to describe an act of communication is to answer the following questions (Lasswell 1948, p. 117):

- Who?
- Addresses the communicator who formulates the message
- Says what?
- Refers to the message
- In which channel?
- Describes the used communication channel for transmitting the message
- To whom?
- Addresses the target group
- With what effect?
- Did the message have the intended effect? Is the overall goal reached and did the communication activity contributed to reaching the overall goal?

Thus, when planning a communication activity, it is important to carefully plan and think about the single components that need to be considered. Based on Lasswell's model (1948) and proposed determinants relevant for effective communication outlined in toolkits and handbooks (Schuster et al., 2005, WWF, 2007), we elaborated a model for successful communication. This model emphasizes the most important determinants that should be taken into account when planning a communication strategy. While those determinants are not new ones and have been outlined in many communication handbooks, they were never brought together in a more strategic way and a systematic model. This model will provide the relevant background for successfully communicating the value of nature to the local people and visitors and also, how these determinants are interlinked with each other.

Thus, our model provides the following advantages:

- it is directly targeted at PA managers or responsible persons from municipalities
- PA managers who are not familiar with communication management or do not have a communication strategy can take this as step-wise approach
- it provides the relevant background for successfully communicating the value of nature and indicates how these determinants are linked to and depend on each other
- Every determinant is presented along with useful tips and checklists on what to consider when elaborating a communication strategy

In the following, the logic of the model will be presented and outlined, including the determinants as shown in figure 3. The next [chapter 4.1](#) will emphasize each determinant including tips and checklists in a more detailed way. The logic of the model follows a couple of leading questions that are outlined in most of the useful communication handbooks on environmental communication (Hesselinck et al., 2007; IUCN, 2014; Schuster et al., 2005; WWF, 2007). Those questions represent every step that one should think through and display the logic of the model:

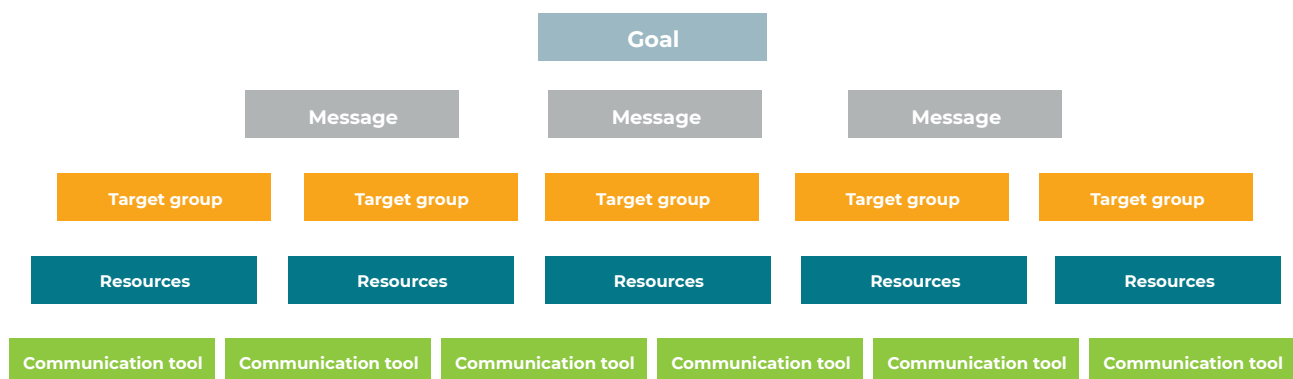
- Analyzing what the main **goal** is: What do you want to achieve?
- Elaborating the **message** to be communicated: What do you want to communicate?
- Identifying and defining the **target group**: Who do you want to reach with your message?
- Checking the available **resources** for this activity: Do you have enough time, budget, staff and expertise?
- Defining the **communication channel** that is most appropriate for disseminating the message to the target group in order to achieve the main goal: Which communication channel is appropriate for reaching your target group and expected to be most effective?

The model starts with the overall question and first determinant: What is the overall objective of the communication activity/your future vision in the field of communication management (e.g. raising awareness for a PA or changing attitudes towards the environment)? It is important to define what you want to achieve when communicating the value of nature. The next step is to think about the second determinant, namely the message. A message is a specific component of the objective that helps achieving this goal. It should address the question: What to communicate? For instance, do you want to emphasize that PAs make a significant contribution to the regional economy or do you want to communicate the recreation opportunities that create well-being and health for the people? Clarifying what one wants to communicate depends on the receiver (target group), its' existing knowledge, attitude and level of involvement.

The next and one of the most important determinants one has to think about is the target group. While elaborating a message, you might already have a hint on who your target group should be. For instance, your targeted audience could be the youth, women, elderly person or pupils. The target group is the particular group you want to mobilize for your overall goal, by transmitting the message. Take into account that the more precise you know who your target group is, the easier it is to target the message to this audience. However, this alone does not ensure successful communication. Hence,

it is also important to consider the existing resources which directly affect the use of communication channels. Those resources include time, budget, staff and expertise for implementing a communication activity. Hence, the last component which depends on the target group and the budget is the choice of the communication tool. Keeping in mind the available resources as well as the commonly used information channels of your target group will help you identify the right and most appropriate communication channel. Using a communication channel that is not frequently used by your target audience will reduce the likelihood that the message will even reach the attention of the target. For instance, social media channels are mostly used by young people and thus, communicating the message through this channel will most likely reach this audience. Thus, it is not only crucial to think of what one wants to achieve and communicate, namely to define the specific objectives but also to tailor the message and communication tools to the particular target group (Nicholas et al., 2017, p. 24). An important task for this model to be applicable in nature conservation is to make the value of nature relevant for the people and to bring the topic and the resulting benefits of ecosystem services closer to them (Sundseth, 2004, p. 48). Once you have a clear idea of what your intended goal of the communication activity is, this model can help you think through each necessary step and determinant.

Figure 3: Model for successful communication



4.1 Determinants of successful communication

This model presents a simplified illustration about the approach to successful communication in practice. Even though in practice more than one goal exists, with many possible messages that are appropriate for more than one target groups or even subgroups, the model still helps elaborate a strategy on how to communicate the value of nature. Thinking through every important criteria and determinant will surely have an effect on the effectiveness of the communication activity.

4.1.1 Objective

Recap: What is the objective of your communication activity?

The objective is the starting point for the implementation of a communication activity. It addresses the question of what one wants to achieve with the communication activity in the long-term. The goal describes the desired outcome of this activity and should be clearly defined in order to be able to assess afterwards to what extent the communication activity was successful and whether the goal was achieved.

Objectives should be S.M.A.R.T:

- **S**pecific
- **M**easurable
- **A**ttainable
- **R**esults-oriented
- **T**ime-limited

When thinking about the objective, it is important to examine whether it is so-called “S.M.A.R.T”. The single indicators for a S.M.A.R.T objective are shown in the following box and describe the conditions a goal should fulfil (IUCN 2014, p. 2):

The objective one defines need to be specific and clear and should emphasize a result one wants to achieve. This includes that all the people involved in the communication process have the same understanding of the objective. Furthermore, the measurability of an objective is provided if scales and parameters (e.g. numbers, percentages) can be used

in order to assess to what extent the objective was achieved or not. Furthermore, a S.M.A.R.T objective requires attainability reflecting that the objective can be realistically reached with the available resources. Result-oriented objectives imply that the communicators know through which actions this attainable objective can be most likely achieved. And lastly, not only the availability of the resources but also the achievability within a period of time is important. In the course of environmental communication, the following long-term goals are usually emphasized: (Probonas, 2017; Sundseth, 2004; WWF, 2007):

- Raising awareness towards the value of nature
- Raising environmental awareness
- Changing behaviour towards the nature
- Increasing knowledge about the PA/ecosystem services

Communicating the value of nature can be either designed to change the people's belief, raise awareness, change behaviour in the long-term or also to influence their knowledge and mobilizing them, as a call for action (WWF 2007). Defining the objective will help determining the “what” question, namely what you want to say and consequently, facilitate the choice of the right approach for reaching this goal (Walter et al. 2017).

Hesselink et al. (2007, p. 256) emphasizes three approaches for three different goals:

- **Goal 1:** **Changing the knowledge of the target group**
Informative approach: relying on general information, discussing problems and solutions
- **Goal 2:** **Changing the attitude of the target group**
Emotional approach: Elaborating an emotionally charged message with a particular focus on the target groups' desires and their characteristics

■ Goal 3: Changing the behavior

Action approach: Strong focus on the particular need to change behaviour and the potential for mobilizing the audience and highlighting the relevance for becoming active

Evidence from the real world:

A study by Hillebrand and Erdmann (2015) for the nature park of the Eifel in Germany revealed that with an increasing level of information people are receiving, the public acceptance towards PA rises

Crucial for this success is an effective communication strategy and the inclusion and participation of the public in the decision-making processes of the municipality

However, this presupposes that PA managers understand the complex context and have knowledge about the background in which one for instance, wants to raise awareness, change behaviour or provide subject-specific knowledge (WWF, 2007). Furthermore, identifying and knowing the people's attitudes and opinion towards nature helps elaborating the message and choosing the most effective communication tool for gaining their interest and attention (Sundseth 2004, p. 32). Based on this background knowledge, PA managers will identify the fields for action and decide upon the overall objective for a communication activity or an entire communication strategy.

Caution: Defining a goal is the first step. Whether one reaches the communication goal will strongly depend on the other determinants of the model, especially the appropriate phrasing of the message,

the identification of the right target group and the use of convenient communication tools based on the available resources.

4.1.2 Message

Recap: What do you want to communicate?

After having defined an overall objective, it is important to think about the message that will deliver specific information. Communicators should then think about the following question: What's the key message in order to increase the target group's knowledge, influence their attitudes or affect their behaviour? How can this outcome be reached? What needs to be communicated? The following important questions can facilitate developing a suitable message that will contribute to the achievement of the objective (WWF, 2007):

- What do you want to intend with your message?
- What do you want to communicate to the audience?
- What impression would you like to create?
- Which emotions do you want to arouse?
- How should the target audience react to this?
- What is your desired result?

The best, most effective and suitable communication activity “in the world will be ineffective, if it doesn’t have a clear message or if the message is too confused or too complicated” (Sundseth, 2004, p. 17). In order to elaborate a good message in the field of environmental communication it is crucial to “develop a stronger link in people’s minds between the values and benefits those places (PAs) bring and the need for them to be looked in a particular way” (Stolton, 2009, p. 49).

According to Hesselink et al. 2007 (p. 262), the message to be communicated depends on a couple of factors that need to be taken into account, such as:

- The overall objective
- The message needs to reflect the communication goal, such as to inform, to change attitude, behaviour and beliefs
- The strategic approach one uses
- E.g. informative, emotional or action-oriented
- The sender
- Who is the communicator? What is the role of the sender?
- The receiver
- Who is the target group? And what are their background characteristics in terms of knowledge, level of education, lifestyle and interest?

Furthermore, the message can also be addressed to multiple audiences. Nevertheless, it is important to make sure that the message addressing multiple audiences is still fitting since it’s common said that “a message for everybody is heard by no one”.

Besides the content of the message, it is also relevant to consider the wording and the impression a message is giving to the audience. Delivering a message that provides the feeling of lecturing the target group or emphasizing restrictions and prohibitions can result in opposition and resistance and thus, not reach the target group in the desired manner. Moreover, communicators should abstain from alarmism, moralization and end-of-the-world scenarios (Schreiner, 2005, p. 393).

Consequently, positive messaging is important. Therefore, the positive values of nature from which the public benefits should be highlighted in a way that is easy clear and understandable (Michelsen & Godemann, 2002). Effective environmental communication gives a positive attitude towards the nature (Schreiner, 2005). Positive messaging can not be achieved only through the choice of the words and the “tone” of the statement but also by explicitly mentioning the benefit or positive value that gives the target group an incentive for changing their behaviour in the long-term. Moreover, outline the benefits of nature in a way your target group can relate to. Only by doing so, this will raise their attention (Sundseth, 2004, p. 73).

In addition to that, the language of the message needs to be kept simple and straightforward. Otherwise, one is running risk that a message including expert language and too subject-specific information that would rather discourage people instead of gaining the target groups’ attention (Cernesson et al., 2005). Making the content of the message unnecessarily complex or abstract increases the risk that the target group will not understand it (Stolton, 2009, p. 49). Furthermore, based on the threshold model in [chapter 3.1](#), the more frequently and consistently a message is communicated to a target

group, the higher the chance that the audience will pay attention to it, understand it, agree with it and internalize it.

However, how this message will be delivered depends first, on the target audience and second, on the used communication tool through which one can reach the target group. As a consequence, the length as well as further details of your message need to be adapted to the communication tool that one is going to use for addressing the target audience. The following box provides a checklist for developing a good message that summarizes the main factors outlined in this subchapter:

Checklist for developing a good message:

- Choose your words wisely - label the content of your message in a **positive way!**
Do not emphasize rules, restrictions and punishments
- Describe the **benefits and values** resulting from nature in a way people can relate to
- Keep the language **simple, direct** and do not make it unnecessarily complex
Use familiar words and stick to short sentences
- **Adapt the length and details of your message** to the target group and the communication tool you use
- **To sum up: Develop an accessible, understandable and user-friendly message!**

4.1.3 Target Group

Recap: Who is the target audience?

Once you draft the message and know what you would like to communicate, you will also most likely already have an idea of who your target audience is. In order to assign the target group to your message and vice versa the first important and recommended step which is rarely taken, is a stakeholder and target group analysis. This will help gain an overview about the group and its' background characteristics (such as age, gender, social class, income). Besides, it will facilitate to open the "black box", namely the audiences' behaviour, attitude, interest and level of knowledge in the field of nature conservation (European Commission, 2015, p. 28). You need to know what the target group cares about and how to reach this group most effectively.

Moreover, such an analysis helps understanding the level of knowledge those groups have towards the nature, what interests they pursue and which

Definition target groups in the field of environmental communication

(Hesselink et al., 2007, p. 243):

- People who are behaving incorrectly ("wrong") or whose behavior, attitudes or opinions you want to change (locals, farmers, business owners disrespecting the nature, rejecting the nature/PAs)
- People affected by this behavior (e.g. people working in the field of tourism)
- People who are in charge of this topic and have the responsibility (e.g. local governments, municipalities, policy-makers)

conflicts they perceive to be existing in PAs. Furthermore, an analysis of the target groups also helps to more precisely define objectives and to target the message and the communication channel to the audience (WWF, 2006, p. 6). Besides, it is then possible to prioritize communication activities according to the identified needs of target groups in PAs (such as reducing conflicts between PAs and the citizens, fostering tourism and the number of tourists visiting the PA, fostering cooperation with municipalities and policy makers) (Vidal and Grenna, 2004, p. 76). Questions addressed in the course of a stakeholder analysis could be the following (Cernesson et al., 2005):

- Who are the stakeholder/target groups?
- What is their background (e.g. in terms of knowledge, interest, attitudes, lifestyles)?
- What is the relationship between them?
- Are there existing conflicts?
- How do they see the problems, challenges (those need to be identified beforehand)?
- What are their major concerns, doubts and how could this be changed?

For the purpose of the guidance document and the particular focus on communicating the value of nature, we clustered the target groups into three main groups that can be also further subdivided (Umweltdachverband 2016):

Table 3: Classification of target groups in three main groups

Public sector	Businesses	General Public
Public institutions working with PAs or institutions having a direct impact on the work of PAs	Private companies and nature-based businesses	Local population affected by PAs, their work, regulations, changes
Example: policy- and decision-makers, municipalities, departments, government agencies	Example: companies, land owners, land users, consultants	Example: citizens in general, visitors, tourists women, students, pupils, volunteers, NGOs, interest groups

The more precise you define your target group at this stage, the easier it will be to figure out how to reach this group. As a reason thereof, when addressing the public, you should be more clear about who exactly you want to address (e.g. clustered into age groups, gender or particular roles such as students or pupils).

Target-group oriented communication is one of the main keys to success. Take a moment to reassess at this point whether the message you have elaborated indeed fits to the target audience you want to address (IUCN, 2014, p. 4):

- Is the message relevant to the target audience?
- Is the message accessible to the target group?
- Is the language appropriate for your target group?
- Is the message comprehensive for the target group?
- Have you said what the benefits are from nature for this particular group?
- Did you consider the overall objective that is reflected in the message you are transmitting to the target audience?

This will presuppose to have taken into account the level of knowledge a target group has and to have used appropriate language tailored to this particular target group when creating the message. Taking these issues into account also includes to consider the linguistic style that fits to the target group. Moreover, for the next step it is relevant to have knowledge about the used communication channels of the target groups. Otherwise it is most likely that one will fail to even reach the audience. After having considered these questions, the next steps include the check of the available resources and finally, the consideration of how and more explicitly, through which communication means to transmit the message.

4.1.4 Resources

Recap: How much capacity is available for communicating the value of nature to the target group?

Resources represent another determinant that is often not sufficiently taken into account when designing a communication strategy or an activity. Resources are often considered from the beginning in the planning stage. The most important resources that should be taken into account and should be fixed for the particular communication activity are the following ones:

Staff and expertise

Every communication activity can only be as good as the effort put into it by the employees in PAs. In the best case, one person in the PA has the responsibility for external communication issues or public relations and already has solid expertise in the field of designing communication activities, addressing target groups and choosing communication channels. In this sense, planning the resources of employees is important. This refers also to the question of how many employees need to be involved and how the tasks and responsibilities are divided internally.



Tip:

The participation in **online communication trainings** can be an effective measure for gaining expertise in the field of communication management and planning activities

Nevertheless, the reality often looks a bit different: Results of the conducted interviews presented in [chapter 3.2](#) indicate that PA institutions are often understaffed (not only in the field of communication management) and rarely have a communication manager in place. Thus, most PAs neither have a systematic approach for developing communication activities nor an internally institutionalized work area for communication management. As a consequence, employees are often not experienced with strategic communication work, never attended trainings on public relations,

never did their work to their best ability and often do not have time in their daily work to become familiar with strategic communication management. Thus, they often lack experience and expertise in this field. This common phenomenon needs to be taken into account, also in the long-term: Does the PA have future possibilities to strengthen this work field? Is there budget and time for investing into the training of employees or least give them some time to become acquainted with communication related issues?

If employees lack the expertise in the field of communication management and the timeframe for the implementation of a communication activity or even a strategy is too restricted, one possibility is to hire an external consultant or an expert who is familiar with environmental communication (Hesselink et al., 2007, p. 53). However, the feasibility of this option depends on the budget, which is the next resource that needs to be considered in the planning phase.

Budget

The budget is an important factor that needs to be taken into account when planning a communication activity. It is not only the question of how much budget is available (if at all), but also a question of what kind of costs will arise in the course of the communication activity. While some communication activities are comparably cheap others require a higher budget as back up for the implementation of the communication activity. Potential costs that could arise in the context of communication management are the following:

- **Material costs:**

Is additional budget required for designing, printing or producing communication material?

- **Media costs:**

What are the costs for publishing content in a magazine, newspaper or a radio/TV spot?

- **Distribution costs:**

What are the costs for distributing the means of communication?

- **Organizational costs:**

Do additional costs of office for required hardware, copying, printing, calls or meetings arise?

- **Staff costs/arising costs for hiring external experts:**

Is additional internal budget for this work needed or is money left for outsourcing this service and hiring an external expert?



Tip:

Start thinking about the budget in advance and include an amount for communication activities in the next annual budget!

When estimating the expected costs, it is relevant to weigh those costs for the elaboration, production and dissemination against the expected effectiveness in reaching the target group (Hesselink et al., 2007, p. 268). Besides, you should consider whether the existing budget that covers (partly) arising costs will stay the same or either increase or decrease in the future. Keeping in mind the annual budget or even planning communication activities that will be considered in the upcoming annual budget is of high relevance. If

costs exceed or will exceed the available budget, collaboration with partners could be one option to share upcoming costs. Another alternative could be using cost-efficient communication tools instead. For instance, social media can serve as a highly effective communication channel that at the same time has very little or no costs at all (IUCN 2014, p. 7).

Time

For a communication activity to be effective it requires the responsible employee(s) to have enough time for planning and implementing it, especially when developing communication activities that are more time consuming than others. However, the capacity for planning and implementing such activities effectively also depends on the overall workload of PAs. Therefore, it can be helpful to have a timetable that displays all communication activities still in the planning or even already in the implementing period



Tip:

Set up a schedule for your communication activities to prevent shortcomings and planning failures!

to avoid clashes and shortcomings in the capacity to implement them simultaneously. A recommended tool to keep an eye on current and upcoming activities is the creation of a GANTT chart.² That provides two advantages: Firstly, all steps in the planning and implementation phase of a communication activity can be listed separately. Secondly, clashes or busy periods become easily visible in this document which will also provide an important hint on the workload.

Besides, a communication activity is only finished when the activity itself was also evaluated with regard to the effectiveness. Thus, this task also requires time that should be taken into account. A certain period of time should be also available for doing this work properly and for assessing carefully to what extent the communication goal has been achieved and how effective the activity was. In order to avoid running out of time or having double burdens from which the quality of the communication work might suffer, it is important to set a deadline and a timeline for the planning and implementing process of a communication activity.

4.1.5 Communication Activities and Tools

Recap: Which communication tool is most effective for transmitting the message and reaching your target group?

Having identified the overall objective, what (= message) one wants to communicate to whom (= target groups), under the consideration of the available capacities (=resources), the last step includes the transmission of this message through the use of an appropriate communication channel and tool. This is of particular importance given that “communication means have strong impact on the effectiveness of communication because they form the link between your organization and the target group” (Hesselink et al., 2007, p. 267). Thus, the used communication tool needs to disseminate the message in a way that is understandable and interpretable by the target audience.

The range of available and applicable instruments and channels for the communication of the values of nature is extensive and can be divided into two categories: either, it is a one-way communication from the sender to the receiver, or it is a two-way flow of information between the sender and the target group. Furthermore, communication can be indirectly transmitted through another medium or channel, for instance the media (Sundseth, 2004, p. 20) or directly, through the existence of a contact point or visitor centre dealing with requests, the provision of general information or complaints.

2. For further information about the Gantt chart, see here: https://en.wikipedia.org/wiki/Gantt_chart.

All in all, it is important to think of target-group oriented communication channels and tools to ensure that the message will reach the respective target group (Schuster et al. 2005). Consequently, the following checklist is helpful when checking which means of communication is the right choice for the planned communication activity:

- Does the tool help reaching the overall **goal** (e.g. changing behaviour)?
- Is the communication tool appropriate for reaching the **target audience**?
- Is the communication tool suitable for communicating the particular **message**?
- Are enough **resources** available for the use of the preferred communication tool?
- What is the past impact with the communication tool and its effect on the target group?

Those questions reveal how strongly the choice of the “right” or most effective communication tool is determined by the previously presented determinants, namely the definition of the goal and message, the identification of the target group and the assessment of the existing and available resources.

When thinking about categories of communication channels it is important to understand that the media serves as multiplier and channel, rather than an audience itself. Based on this logic, the channels can be categorized into three groups with different communication tools and activities and varying advantages and disadvantages. For easier differentiation we will rely on the following three groups:

■ **Online media**

Refers to information disseminated through online media channels (e.g. websites, online portals, social media channels)

■ **Print Media**

Refers to information disseminated through classical print media (e.g. articles, brochures, leaflets)

■ **Participatory events**

Refer to a participatory format in which a group of people comes together and interacts with each other (e.g. round tables, word cafes, workshops, guided tours, civil dialogues)

Those three particular types will be further outlined, including the presentation of particular communication tools and whenever suitable, the emphasis on good practices from the real world. When thinking about the communication of the value of nature, it is important to understand that journalists can also be helpful partners in successfully communicating the value of nature. Whenever using the media as multiplier for transferring the message (e.g. through press releases or articles) it is important to recognize that the information transmitted through this tool will not only reach the target group but also the media and journalists. Consequently, the communication process can also affect the way the media and journalists perceive the PAs and the value of nature and result in the improvement of the media coverage about the PA (Sundseth, 2004, p. 48).

Every subchapter informing about the three groups of communication channels will start with a list of potential communication tools.

■ Online media

List of communication tools from the field of online media:

- Publication of information on the website of the PA
- Publication of information on the website of partners, stakeholders or municipalities
- Online publication of press releases, articles (e.g. on the websites of newspapers)
- Gallery on the website with pictures from previous tours, campaigns, events
- Social media: Instagram, Facebook, Youtube, Twitter (→ Social media marketing)
- Newsletter
- Promotion of an image film

The internet has become the most popular source of information and news. As communication channel, online media provides the advantage of providing room for discussion and interactions which makes the communication process much more open than this of print media for instance (Varner, 2014). In this regard, contributions to radio and TV shows through the dissemination of promotion videos or interviews can be used as additional communication channels.

Moreover, social media marketing is perceived as commonplace approach. It is understood as marketing for social concerns and it relies on the idea that social media marketing tools such as Facebook campaigns and advertisement can contribute to resolving societal but also environmental problems and challenges. Contrary to the classical marketing, social media marketing is non-profit oriented and aims at addressing and mobilizing locals for become active and taking over social responsibility (Kleinhückelkotten, 2002, p. 17). Story-telling can be a very effective approach for reaching people, attracting their attention and awaken their interest. Moreover, social media channels are generally effective for the dissemination of information. Using hashtags on Instagram or Twitter may provide an extra recognition factor. Furthermore, short promotion videos about the PA, its products and benefits can be on these channels. In addition, weekly campaigns informing about offers in the PA, species or values of nature from which people benefit in this region can be easily implemented with comparatively low effort and no additional costs. Social media serves as suitable platform whenever a message should reach the youth or young persons in general (CBD 2004). Nevertheless, jargon and technical language should be avoided. When disseminating information on social media channels it is important to be able to state the main message in one sentence. Long and complex texts that are too subject-specific will not reach the audience through this tool. The title of your post or text will be most important and the title itself needs to be clear and comprehensive at first sight. Moreover, collecting a message with a picture that visually symbolizes the content can be also useful. Social media channels such as Facebook or Twitter also strongly rely on the interaction with the followers and thereby, provide a possibility for a virtual two-way communication.

Advantage	Disadvantage
Detailed information can be provided if relevant	Time-consuming
Enough space for in-depth stories	Requires a range of information
Affects a large number of people	Set-up requires time and staff
Content/scope can be easily adapted to the target group (e.g. social media is different than online portals of newspaper)	Oversupply of information important to stand out
Can be easily developed in a visual attractive design	Information is quickly outdated
Social media marketing is a promising approach in the future	Language needs to be tailored exactly to the channel and tool and the target group one wants to address
Websites or articles can be easily linked to social media channels	Websites/profiles on social media need to be continuously maintained

However, online media refers to more tools than simply social media. It addresses also websites that continuously inform about the PA's activities or it can refer to online news portals as alternative to the classical newspaper. Moreover, it could also be an interface with websites of stakeholders and partners which through this interface also inform about news from the PAs. Linking own input to other websites, portals or newspapers can be easily done and does not require much time and effort.

Another common and popular tool is the newsletter. The advantage of a newsletter is that it is still online but it provides much more space for reaching people. Newsletter can, but don't have to be published in a strict timeframe. They can be also developed for particular occasions, events or news. With a newsletter you have the possibility of summarizing the most important information in a short abstract, which will possibly catch the attention of the reader (IUCN, 2014, p. 14). This guarantees that your reader will visit the website and perhaps read further information provided. Moreover, displayed graphics and pictures or interviews and expert contributions make this tool more attractive for the reader. Nevertheless, it is important to keep in mind that the elaboration of newsletter takes time and requires a good background knowledge.



Tip: *Online media provides a very limited space for catching the attention of the reader – but it also provides many possibilities. Do not overcrowd your content, keep your message shorter and make it as interesting and diverse as possible (facts, figures, quotations, external voices)!*

Writing tips for the elaboration of print and online media are provided [here](#).

■ Print media

List of communication tools suitable from the field of print media:

- Press releases
- Publications in articles in print media such as magazines
- Factsheets
- Brochures/leaflets
- Publication of articles or interviews in print media
- Poster
- Annual reports for particular stakeholders
- “Own newspapers” informing about PAs activities

Print media and print materials remain a popular communication tool (IUCN, 2014, p. 11). They provide the advantage of reaching wider audience; include detailed information (message can be longer) and they are more durable since they can be clipped, saved or printed. Messages delivered through print materials can be easily tailored to the audience and provide for instance, much more “space” for transmitting the message compared to social media channels. Furthermore, depending on the newspaper or the magazine it can be another source for providing further credibility and more serious outlet for information.. Due to the broader scope it can be more than only a tool for raising awareness but also serve as mean to educate the target group and transfer subject-specific knowledge related to the PA. However, whenever thinking about making use of a communication tool that requires a production and printing it is important to clarify, whether the same effect could be also reached by relying on online tools which require less resources.

As example, brochures or leaflets are probably the most popular means of communication in the field of print media. Leaflets can be very short, similar to a factsheet or longer with broader information. They can inform about activities in PAs or be developed for particular events, highlights or thematic issues (e.g. specific information about the products produced in the region or in the PA). Once a design is set, the content can be easily changed and adapted to the input. Moreover, leaflets or brochures provide the advantage of being easily disseminated multiple times during events and venues, in local institutions but also in visitor centres (IUCN, 2014, p. 12). The following table shows a list of common advantages and disadvantages of communication tools from the field of print media (IUCN, 2014, p. 11).

Advantage	Disadvantage
large audience can be easily reached	Printing is costly and seldom environmentally-friendly
can include detailed information	Set-up requires time and staff
Might provide more credibility	Lacks a participatory component
Can serve as low-cost option compared to other one-time tools	Can be easily overlooked or become quickly outdated
Effective tool for reaching more educated target groups	Unknown to what extent the target group will be reached

What is most noteworthy, is that print media can have the disadvantage of remaining solely a passive and one-sided communication tool. Such tools often lack the participatory component. Moreover, when print media is not elaborated well enough it might simply be overlooked, time-intensive or become quickly outdated. (ibid.).

For print material you will produce by yourself (e.g. poster, leaflet, brochures, factsheets etc.), it is important to consider design-related issues. For instance, make sure that you use a coherent layout for the entire document, with the same colour schemes and fonts. Include pictures and refrain from including too much text. Make it visually appealing and attractive by adding pictures and awaken the interest of the reader.



Tip: *Whatever you decide to use in the field of print media to address your target audience, make sure to mobilize them with your language – include a call of action, make them feel appealed and affected by what you are reporting and informing about!*

Writing tips for the elaboration of online and print material:

- Concentrate on your target audience: It is the target group you want to reach and this is the reader you want to address
- Keep it simple: Be aware that young people should be addressed differently than policy-makers; adapt the style of language and the complexity of information to your target group
- Think about the use of language: Use simple, friendly and direct language; repeat your key message throughout the text
- Avoid clichés and do not put the emphasis on negative issues (e.g. threats of the nature). Rely on positive wording!
- Make your message vivid and comprehensible. Readers should be able to picture the content, the problems or the solution you are suggesting. Write in an active style that mobilizes to become active!

■ Participatory events

List of communication tools suitable from the field of participatory events:

- Classical formats such as guided tour and experiences of the nature
- Workshops, expert workshops, round tables, dialogue processes, stakeholder forums
- Conferences
- Seminars (with different themes)
- Local ambassadors
- Theme week with pupils or in schools

Usually the classical ways of environmental protection and communicating the values of nature within PAs involve (primarily out-door) activities (Schreiner, 2005) such as a guided tour where participants can experience the nature. Offering guided tours provides the advantage of not only showing how the nature can be experienced (as recreation area for locals and tourists) but also how to learn, how to enjoy but also protect the nature (Sundseth, 2004, p. 20). Offering and promoting such guided tours can have a great impact on the perception of the values of nature and the PA. As outlined by Scholte et al. (2016, p. 477),

“when forming ideas and attitudes about ecological restoration, people often do not rely on logical arguments and reasoning, but on knowledge they draw from experiences, e.g. by being in nature or by talking with others and/or emotions” (see also Brody 2005; Fazey, Evely, Reed et al. 2013). The particular types of participatory events depend on the intended goal of the participation which can be firstly, either simply providing and disseminating information. Secondly, participatory events can have the format of consultations which means that stakeholders involved can react to the information, input, proposals or presentations. Thirdly, last

Good practice: Danube Guides

In the course of the EU project LENA (Local Economy and Nature Conservation in the Danube Region), so-called “Danube Guides” have been trained in six countries with a focus on environmental education. The training of Danube Guides serves the purpose of providing new income possibilities in the respective Danube regions. The Danube Guides elaborate and offer touristic products such as guided tours for locals and tourists.

The special feature is that they address both, nature and culture in their Danube region. Offering such tours in PAs can help not only to raise awareness for the values of nature but also to educate people and to transfer knowledge through the dissemination of region-specific information. It provides an income possibility for locals in becoming a Danube Guide and offers touristic products but it also fosters communication and serves as tool for raising awareness for the nature and culture in this region and thus, the values resulting from nature in this PA.

type of participation refers to any other type of active involvement, such as round tables. This type refers to the inclusion in decision-making or planning processes, common elaboration of solutions and discussions about relevant topics (Cernesson et al., 2005). Participatory and consultation processes are increasingly acknowledged by the literature, experts and practitioners. Those formats can include, for instance, collective discussion, mutual learning activities or round tables. They provide the advantage of deepening the understanding and knowledge of the values of PA but also serve as platform for direct interactions and exchange (Waltz et al., 2017, p. 6). In general, those participatory events refer to two-way and direct communication with the possibilities of the target group to directly react to the messages delivered.

But participatory events can go beyond an activity that addresses mostly visitors and focus more on locals. Consequently, additional formats for participatory events exist which help in mobilizing the target groups and foster stakeholder engagement going beyond the public in order to disseminate the value of nature. Moreover, these formats have in common that they provide an appropriate platform also for educating and motivating the target group. Depending on the type, such participatory events can also be organized on a regular basis and thereby, provide possibility for a greater inclusion in the decision-making processes. This type of communication tool provides the advantage of increasing efficiency through active participation and common consultation as well as providing greater inclusiveness and transparency of the PA's work (NATREG, 2010).

Moreover, those events create a personal contact between the target group and the receiver (the PA) which can in the long-term also result in the encouragement of becoming active or volunteering in the PA or at least, by "being the eyes and ears of the society and reporting illegal activities" within the PAs (Sundseth, 2004, p. 48) By directly engaging with the public and the locals, both, scientists and PA managers can foster support for their PA which is likely to increase the awareness and the success of nature conservation in this area (Scholte et al. 2016).

Advantage	Disadvantage
Two-way flow of information	Time-consuming
Active participation	Requires intensive and long planning process
Deepen the understanding of the PA's work, the performance and the goals	Depends on the willingness of actors to participate
Interactive format and personal contact	Effective follow-up is required
Can be organized on a regular basis	Only effective in combination with other communication tools informing about the event
Format can be easily targeted to the audience	
Strengthen the transparency of the PA's work	
Format that can foster mutual trust	

Local ambassadors present an interesting and increasingly popular format of participatory events. Especially when aiming at reaching stakeholders, policy- and decision-makers on the local or regional level, electing a local ambassador can be a useful tool. This can be a popular person with the respective expertise in the field and the connection to the region of the PA that can actively influence and promote the PA and its benefits to the other regions or the political level. Based on the popularity and power of the ambassador this can have great influence on the perception of the PA and the values of nature promoted in this region.



Tip: *Consider the organization of participatory events as addition to your other communication activities (through online or print media) since the personal contact will serve as important action to raise the awareness of your PA, your work and the values of nature to be stronger emphasized in your region!*



Recap: The choice of your communication tool is only as good as the probability of reaching the target group by using this tool. Take your time and analyse your target groups in order to understand what types of channels and tools they use. This background knowledge, together with an overview about your available resources will help to communicate your message to the audience in the most effective way!

5. Monitoring and evaluation

Leading questions of this chapter:

- What is the role of evaluation and monitoring?
- Why is it important to evaluate and/or monitor the outcomes of the communication activities?
- How to evaluate and monitor communication activities effectively?

Evaluating and monitoring the effectiveness of communication activities is of high importance. This task should be overtaken by communication or PA managers for every communication activity they are implementing. Without the use of appropriate evaluation and monitoring tools, one cannot say clearly if the goal of the activity was achieved.

First and foremost, every communication activity comes with a particular objective, as outlined in [chapter 4.1.1](#). As emphasized by the WWF, “as with all strategies your project team implements, it is important to monitor and evaluate the extent to which your strategy is contributing to your conservation objectives and goals” (2007, p. 11). The intended outcome of effect on the target group can either include reaching the group through the message, simple disseminating information, raising awareness towards an issue or even pursuing the long-term goal of changing the target groups’ behaviour and opinion towards nature. Nevertheless, the first precondition for effective communication is that the message has reached the target group. In the second step, it is important to assess whether the chosen tools, communication channels and activities have been appropriate for either achieving or at least approaching the objective (e.g. changing behaviour in the long-term). Hence, evaluation tools help identifying the degree of success but also challenges, shortcomings, risks or even failures or mistakes. The continuous evaluation of these activities helps reducing the potential costs in the long-term by preventing further failures and optimising the work in the field of communication management. As outlined by the IUCN (2014, p. 33), *“it’s good to build in plans to monitor and measure the success of your communication activities. The evaluation phase is an important stage in assessing what did and did not work and seeing if the objectives were met. The findings are also useful in guiding future communication activities”*.

In order to include evaluation and monitoring activities in your communication work in a more systematic way, one recommendation is the elaboration of an “evaluation plan” as suggested by Ridder, Mostert & Wolters (2005, p. 79). Such a plan should be developed during the planning phase of a communication activity even though

Lessons learned

- What is your objective?
- How will your communication activity contribute to achieving this goal?
- What message will you transmit to the target group?
- What would be a desired reaction from the target group to your message?
- What do you expect them to do as a consequence?

Important: Objectives should not be “desirable” but “achievable” (European Commission, 2015, p. 41)

the evaluation itself is ex-ante. But how are you going to evaluate the activity and the appropriate use of evaluation measures?

Before doing so, the basic leading questions in the box on the right side can help. Those questions should be always considered when thinking about measures for evaluating and monitoring communication activities. Knowing what one wanted to reach through the implemented communication activity will help to adapt the evaluation and monitoring mechanisms to this purpose.

Having in mind what the communication activity intended to reach, the next step refers to the identification of indicators that help assessing the communication activity. According to Ridder et al. (2005), good indicators are supposed to fulfil the following four conditions:

- Measurable
- Precise: defined in the same way by all the people
- Sensitive: changing proportionally in response to changes in the conditions
- Easy to use

In the best case, indicators for evaluating the effect of communication strategies or activities should be set before implementing the activity. Otherwise it might be too late to use the planned measures for assessing the effectiveness of the action. Furthermore, progress should be monitored continuously in order to compare the effects, achievements or progress over time (especially with progress that requires time, such as changes in attitudes) (European Commission, 2015, p. 40). Using indicators for measuring the effectivity of communication can for instance, include the number and background of reached stakeholders during a workshop or data sources such as the number of people reached through a newsletter, the assessment of a feedback form after a campaign or a visit in the PA visitor centre or any other activity that can be measured in numbers. Thus, indicators should also be filled by the appropriate data in order to be able to assess the outcome, since “the measurement should allow for comparing effect over time (what is the situation of the target audience before the intervention – what is it after)” (European Commission, 2015, p. 41). Given that the respondents of the interviews presented in [chapter 3.2](#) emphasized the importance of evaluation measures and repeatedly expressed the wish to receive further information about effective evaluation tools. As a reason thereof, a table with an overview about different evaluation measures is shown in table 3 that serves as guidance for PA managers and as a basis to start implementing evaluation measures. The table provides a list of examples on how to evaluate the effectiveness of the communication activities based on collecting data from different sources. Nevertheless, every PA needs to re-think this process and adapt it to the particular tools they are using and their environment.

However, it is important to keep in mind that measuring the quality of the communication activities and the expected outcomes requires always a certain amount of resources. Nevertheless, gaining experience in the use of different measures will help to improve the quality of monitoring and evaluation over time and thus, also contribute to reducing the costs arising in the implementation of communication activities. Moreover, gaining insights on the effectiveness of the used communication channels by applying indicators will help assessing what effect the communication activity had and to what extent it contributed to achieving the overall objective by transmitting a particular message. (European Commission, 2015, p. 41).

Nevertheless, evaluation and monitoring is not only about simply collecting numbers which can be compared over time (e.g. the number of reached people). Thus, evaluation should go beyond purely quantitative approaches (e.g. simply collecting data) and also include qualitative processes that provide information about the content-wise feedback of the quantity of people reached. This often corresponds to public and stakeholder engagement. The most common evaluation tool for doing so are evaluation forms which can either address expectations, for instance before an event, or the evaluation of a campaign, an event or a workshop ex-ante. Evaluation forms have the advantage that they provide much more space for feedback, ideas, improvements and suggestions which can even go beyond the intended goal of this form. Besides, evaluation forms as tool can be used both: before and after an event or a communication campaign. Thereby, this provides the monitoring process in the long-term and offers more profound feedback than simply collecting data and numbers (which do not say anything about the quality). This facilitates the assessment of changes in attitudes or behaviour through the use of communication activities over time. Furthermore, once you have an appropriate, clear evaluation form, costs are relatively low (in terms of time) to collect the requested information and feedback. What remains, is the analysis of back you receive.

Table 3: Exemplary list of mostly data-based evaluation tools (based on IUCN, 2014 and the European Commission, 2015)

Evaluation tool	Measure/ indicators	Appropriate for comm. Activities	Advantage	Disadvantage
Media statistics	Number of Press releases Overall reach of the newspaper	Press releases and media articles (e.g. also in magazines)	Cost effective method High likelihood of reaching a wide range of people	One sided evaluation Long-term changes in behaviour cannot be properly evaluated
Website statistics	Page views Downloads Search engine rankings Reached people (via newsletter)	Disseminating information on the website (e.g. news) Newsletter	Cost effective method Various types of information can be disseminated and evaluated	Target group cannot be fixed Long-term changes in behaviour cannot be properly evaluated
Social media numbers	Likes, follows, retweets, analytics (Facebook, Twitter, Instagram, Youtube), Comments, discussions and number of reached persons (interaction rate, bounce rate)	Social media campaigns Short information (news) Announcement of events	Cost effective method Target group can be gathered and explicitly addressed (if relevant) Number of people reached directly observable	Long-term changes in behaviour cannot be properly evaluated

Communication (in general)	Phone calls, emails, personal comments and feedback forms	General information Information about events, workshops Provision of communication material (e.g. flyer)	Provides not only numbers but also content-wise feedback Can be used at different points in time (for assessing the situation before/ after an activity)	Only possible if there exists a contact person (someone being responsible for this kind of feedback)
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Given that success is much more difficult to measure through feedback forms it is important to think about appropriate indicators in order to review if the goal was achieved, to assess engagement rate of the stakeholders or how they would assess the success of your event and the information they received. Depending on the occasion, feedback forms can be distributed in person (e.g. in a visitor centre or during an event), by email or online. PA managers responsible for communication should think about evaluation in the planning phase, when deciding upon the message, the target groups and the communication channel and not start thinking about this step after the communication of the value of nature. If enough resources (especially in terms of budget) are provided, PA managers can also outsource the evaluation and monitoring of communication activities and hire external experts for taking over this responsibility.

For further information on how to effectively evaluate communication we highly recommend the Toolkit designed by the European Commission to plan, measure and evaluate communication activities (see European Commission, 2015). The document is available [here](#) and it provides guidance on how to measure and evaluate different information and communication activities, such as websites, newsletters, press events or social media activities. (European Commission, 2015, p. 19). Moreover, the document also includes a step-by-step approach for the implementation of those evaluation tools and an overview about estimated costs for the particular tools (ibid.).

Nevertheless, it is important to note and to take into account that not all of the objectives can be easily measured directly. For instance, monitoring of long-term changes in opinions, attitudes or behavior requires continuous surveys with respondents, which can be costly and time consuming. Hence, this requires time and effort. If monitoring and evaluation tools show that over time there is no improvement or change in the expected behavior, opinion or attitude of the target group, then one has to reconsider its communication approach and strategy. Whenever thinking about useful leading questions that help assessing the success of the communication activities, the following list can be useful (WWF 2007, p. 12):

- Did you use the right message (wording, complexity, degree of information included)?
- Did you reach the right audience for transmitting the message?
- Did you use the appropriate communication activities for reaching the target group?
- Were the necessary resources available for using the communication tools (time, expertise, money)?

- Does an alternative communication approach exist in order to reach the target audience and the most effective result?



Please take into account that this overview of possible monitoring and evaluation schemes is just an abstract of all possible evaluation and monitoring tools. PA managers have to think about the communication tools they apply and the goal they are pursuing with disseminating the message to a particular target group. Moreover, the need to check available resources for effectively implementing evaluation and monitoring tools. Consequently, this chapter provides an introduction and aims at emphasizing the role and importance of such tools in general.

6. Summary and Conclusion

Effective and successful communication needs setting clear objectives and knowing what the aims of particular communication activity. It is about the message communicators want to transmit, about the target group and the effective use of resources and communication channels tailored to the audience.

The purpose of this guidance document was to outline and highlight two interconnected issues. Firstly, what are the values of nature that should be stronger communicated to the public. What are the benefits people have from nature or in particular ecosystem services? What are the differences in those benefits, e.g. socio-cultural, environmental and economic? Secondly, the guidance document addressed the question of how to communicate those values to the public. What is a suitable approach? How should communication activities be set up to contribute to an effective communication? What is a theoretical approach that can be easily transferred into practice and applied by PA managers?

Moreover, the document is an effort to provide a step-wise approach and to emphasize all factors that contribute to the success of communication activities in the field of environmental protection. By referring to the model for successful communication and bringing those elements together in a more systematically way, we addressed the single elements and components that PA managers need to think of, include and adapt to their own circumstances in order to elaborate the most appropriate strategy depending on their surroundings.

Main principles and recommendations of the guidance document in a nutshell:

- Think big: What's the overall goal and strategy of your communication activities?
- Think about what you want to communicate: about the content of the message, the language and style you will use that should fit to your target group
- Make sure that you are addressing the right target group(s) with the message you are sending and consider if they will be able to listen to the message and understand it
- Reflect on the communication channel for disseminating the message: Is it appropriate? Is it the right channel for reaching your target group?
- Never misstake available resources into account when planning a communication activity – no activity, campaign or event will be successful without the necessary resources such as staff, expertise, money or time
- As continuous task: Evaluate the effectiveness of your communication activities and learn from mistakes and successes!

Furthermore, the guidance document also brought two previously separated strands of literature together: scientific literature about ecosystem services and practical

communication toolkits from the field of environmental protection. Using this approach provided the possibility to adapting this guidance document as much as possible to the needs of PA managers. Given that communication is often a neglected topic in PAs with lacking structures and forms of institutionalization it is even more important to outline the potential of effective communication strategy not only for the PAs or the public but also for the well-being of nature and for long-term protection of the environment. This corresponds to Sundseth's (2004) argument and necessity to put stronger emphasis on communication in Natura2000 sites which can be also applied to any other PA or environment sites that should be protected (p. 14):

“Communication is the only way to bring discussions over Natura2000 into the realm of an informed debate and away from some of the more instinctively negative reactions that are often seen today which are caused by misunderstandings and lack of information. Establishing a dialogue between different interest groups and conservationists can help root out unfounded fears about the impact of Natura2000.”

Communication needs to be understood as a process, as something dynamic. Every activity needs to be tailor-made for a particular situation. Taking over this task also requires continuous assessment of the effectiveness and the use of appropriate evaluation and monitoring tools. Moreover, every communication activity needs to be tailored to the different circumstance and situation one is facing – this includes, the objective, the target group, the key message, the available resources and lastly, the communication tools.

Communicating the value of nature is a topic that will gain in importance in the next decades and hopefully play a greater role than before. Effective communication of those values will become increasingly important and presupposes the employment of a long-term approach. This document can serve as first step in guidance.

7. Annexes

List of respondents to interviews

Country	Protected Area	Respondent	Type of survey
Germany	Landscape Park Young Danube	Manager of the Nature Park Upper Danube	Via Email
Bulgaria	Rusenski Lom	Employee of the municipality of Ivanovo	Face-to-face interview
	Persina	Employee of the municipality of Ivanovo	Face-to-face interview
Croatia	Vukovar Srijem County	Protected Area manager (Mario??)	Via Email
Serbia	Gornje Podunavlje Fruska Gora	Who filled it?	Partly via Email, partly Face-to-Face
Hungary	Szatmár-Bereg Nature Park	External person	Via Email
Slovenia	Gorenjska Region	Protected Area manager	Via Email
Romania	Comana Nature Park	Protected Area manager	Face-to-face

Questionnaire

1. Responsible contact person		YES	NO	n/a
1.1 Do you have a Communication Manager in your/ the Protected Area (PA)?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.1.1 If yes:	Please write down the contact details (name, address, phone number and email address)			
1.2.1 If no:	Who is responsible for Communication Management in your PA?			
A contact person in the visitor centre?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A contact person in the tourism centre?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A visual contact person (e.g. responsible for web maintenance)?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Please write down the contact details (name, address, phone number and email address)				

3. The Value of Nature		YES	NO	n/a
<p>3.1 From the perspective of a PA: What are the advantages of PAs for the local economy and should be stronger communicated to local people and visitors?</p> <p><i>e.g. Social values and benefits (such as well-being, quality of life, recreation, environmental education, regional identity), economic values and benefits (such as creating new jobs and employment, attracting visitors and tourists, improving the economic potential/marketing of the region) or environmental values and benefits (such as protecting the nature, the biological diversity, sustainable land use, sustainable development of rural areas)</i></p>				
<p>3.2 What is the attitude of the local people towards the PA?</p>				
3.3 Have there been any problems or conflicts between the local people, visitors and the PAs?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.3.1 If yes:	Give a short description of the revealed problems			

4. Target Group		YES	NO	n/a
4.1 Are the target groups of your organization's communication activities clearly defined?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.1.1 If no:	Head over to the next box "5. Communication Tools/Channels and Target Groups"			
4.1.2 If yes:	What are the target groups your communication activities aim at?			
		YES	NO	n/a
Local people		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Visitors and tourists		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Regional and local public authorities		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
National public authorities		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Businesses and enterprises		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NGOs and interest groups		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. Communication Tools and Target Groups	YES	NO	n/a
5.1 Which tools do you use for your communication activities?			
Press Releases	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Posters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Brochures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Social Media (e.g. Facebook, Twitter, Instagram)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Newsletter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Articles and magazines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Workshops	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Guided tours	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Promotion videos	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Others ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.1.1 Which tools do you use for addressing local people in particular?			
5.1.2 And which tools do you use for addressing visitors/tourists in particular?			
... in the content of the message to be delivered:			
... in the content of the message to be delivered:			

	YES	NO	n/a
5.3 Is there a visitor or tourism centre for basic information providing overview about the area and the activities for visitors and the local people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.4 Language of the communication channels/tools			
5.4.1 Is the website available in English?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Please insert the link here:</i>			
5.4.2 Is information material (e.g. leaflets, brochures, newsletters) provided in English?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.4.3 Are excursions or outdoor activities available in English?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.4.4 Is the staff working with customers fluent in English?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. Good and Bad Practices	YES	NO	n/a
6.1 Can you report on good practices and bad practices regarding used communication methods, channels or tools in order to communicate the value of nature to local people and/or visitors?			
Good Practices:			
Bad Practices:			

7. Evaluation and monitoring		YES	NO	n/a
7.1 Do you have tools for a systematic evaluation or monitoring of your communication activities (e.g. such questionnaires or online feedback)?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.1.1 If yes:	Which one?			
7.1.2 If yes	Does your organization provide the evaluation and monitoring tools also in English?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.2 Do you have any recommendations on evaluation and monitoring tools that were most effective?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.2.1 If yes:	Which one?			

8. Literature, practical handbooks and toolkits		YES	NO	n/a
8.1 Do you know or use relevant handbooks in German/English (e.g. on the development of communication strategies or the effective communication of the value of nature in PAs to the public)?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.1.1 If yes:	Please write down the source (author/publishing organization) of the document(s)			
8.2 Do you have any literature recommendations in general or do you have practical handbooks, guidelines on Communication Management in PAs in mind? (in German/English)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.2.1 If yes:	Please write down the source (author/publishing organization) of the document(s)			

To sum up:

What is for your organization the most important message/information everybody should know about?

Other issues

Further information, questions, feedback

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