# Global Population Management Policy in Zoo Associations

Bottlenecks that complicate the implementation of global species management plans

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Cover photography of red panda by hdscreenwallpapers.com

The red panda (*Ailurus fulgens*) is one of the few species in a Global Species Management Plan. This program was established to manage the individual unsustainable regional sub-populations as one meta-population in order to improve the management and to make a meaningful contribution to the conservation of the species. (WAZA, 2012)

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## **Summary**

Cooperative population management is essential for the long-term viability of animal populations held in zoos and aquaria. In several regions, zoos are working together on population management by cooperative breeding programmes. Since most of these managed populations are not viable, it is suggested that some populations should be managed globally in order to overcome regional limitations. So far, six trial Global Species Management Plans (GSMPs) have been established, each involving two or more regional associations. The aim is to establish more GSMPs in the future. Even though participating associations may have the same high aspirations to collaborate, differences between their policies regarding population management may obstruct successful cooperation.

In this research, the policy documents of EAZA, AZA and ZAA were analysed in order to identify and to give insight in the bottlenecks that could complicate the development of a global population management policy. According to a framework analysis method, a thematic framework was identified and relevant data indexed and charted, so that key themes could be determined. The same method was used to determine the key elements that relate to animal transfers, since only those elements are relevant in the event of transferring programme animals between regions. After this process, subjects within the key elements were determined and subsequently these subjects were compared based on their content. Subjects, for which differences in policy were found, were then presented to representatives for GSMPs of EAZA, AZA and ZAA. During an interview the representatives indicated which of these subjects they expect to cause a bottleneck for their associations when implementing GSMPs.

The policies were compared per subject, resulting in eleven subjects with a difference in policy. After presenting these differences to the representatives, it became clear that three subjects could cause a bottleneck. These bottlenecks are Acquisition finances, Disposition finances and Reintroduction. EAZA and ZAA stress the non-commercial status of program animals in their policies and will not allow their members to get involved in profit-making with regard to program animals. However, AZA does not have a policy about finances. AZA member institutions are free to decide if animals are being traded, transferred as a gift or sold to another institution. The third bottleneck is Reintroduction, since EAZA has a strict policy on only following the IUCN Guidelines for reintroduction, while following these guidelines are not a prerequisite for reintroduction projects involving AZA and ZAA members. Other subjects for which differences in policy were found, are Acquisition decision, Acquisition from external parties, Disposition decision, Disposition to external parties, Ownership agreements, Transport coordination and responsibility, Transport finances. However, if discussed prior to the development of GSMPs, a joint statement or harmonized policies regarding GSMP species might be developed, making these subjects not irreconcilable bottlenecks.

This study has found that generally the policies of EAZA, AZA and ZAA are similar with regard to the animal transaction related subjects. However, this similarity does not apply to the subjects Acquisition and Disposition finances, of which the representatives expect to cause bottlenecks when implementing GSMPs. Although the policies are quite similar, other issues such as law and regulation, health requirements and high inter-regional transport costs should also be considered to cause possible bottlenecks. Besides this, some subjects that might cause bottlenecks are not covered in the policies, for example the geological distances for transport and conservation finances.

Based on a thorough analysis of the population management policies of EAZA, AZA and ZAA, recommendations are made, concerning raising institutional awareness and support for GSMPs, developing joint statements for GSMP species or fully harmonizing policies, doing further research into international laws and regulation and discussing practical limitations and (financial) impact on participating institution.

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## 1. Introduction

The World Association of Zoos and Aquaria, WAZA, is the umbrella organization for about 1300 zoos and aquaria spread across 22 regional associations around the world. WAZA's goals and objectives include the call for cooperation between member institutions with regard to conservation and population management (WAZA, 2005). Cooperative population management is essential for the long-term viability<sup>1</sup> of animal populations held in zoological institutions (Hutchins et al., 1995). In order for captive populations to be viable, they have to be demographically stable and genetically healthy without any heritable diseases and be capable of self-sustaining reproduction (WAZA, 2012). Other requirements for viability are a population distribution among several institutions to lessen the risk of catastrophic loss and a sufficient population size to maintain high levels of genetic diversity (WAZA, 2012). Furthermore, cooperative population management can reduce the need for importation of animals from the wild and the production of surplus animals (Koontz, 1995; Grahan, 1996; Carter and Kagan, 2010).

In a number of regional associations, zoological institutions are intensively working together on population management. By managing their populations on a regional level and establishing joint breeding programmes, they aim to keep their populations viable. Examples of well established regional breeding programmes are the European Endangered Species Programmes (EEPs) of the European Association of Zoos and Aquaria (EAZA), the Species Survival Plans (SSPs) of the North America based Association of Zoo and Aquariums (AZA) and the Australasian Species Management Programmes (ASMPs) of the Zoo and Aquarium Association (ZAA) of Australia. Even though other regions, for example the Latin American Zoo and Aquarium Association (ALZPA) and the Japanese Association of Zoos and Aquariums (JAZA), are newcomers in cooperative population management, they are developing an increasing number of breeding programmes as well. Nevertheless, after an assessment of 87 predominantly North American and European zoo populations for priority species, it was found that 52% of the populations are not breeding to replacement and 45% do not currently retain recommended levels of gene diversity (Lees and Wilcken, 2009). Additional research requested by several regional associations support this finding (De Man, pers.com., 2012). For example, the majority of 91 bird and 177 mammal populations of EAZA that were analysed, are not meeting the association's criteria for sustainability (Leus et al, 2011).

WAZA (2005) suggests several different strategies to improve the management and thus viability of breeding programs, among which the expansion from regionally to globally managed programmes. After reviewing the potential of this strategy across different regions, Lees and Wilcken (2009) also found that population management on a global scale would overcome some of the regional limitations, like small population sizes. By combining small populations in a globally managed programme, the demographic stability will increase and coordinators will be able to work more effectively on the management of minimizing inbreeding and improving or retaining gene diversity (Hiddinga, 2007; Lees and Wilcken, 2011). Another advantage of global management is that it offers a clear overview of all specimens and institutions in every region and it will be easier to make strategic subdivisions of a population and to plan migrations between these subdivisions (Margan et al., 1998). Further, instead of the continual exchange of over represented individuals to other regions, an equal distribution of founder lines between regions can be made in order to maximize genetic diversity (Hiddinga, 2007; Lees and Wilcken, 2011). Other direct advantages of globally managed programmes are the possibilities of sharing knowledge and experience between regions by working towards common goals (De Man, pers. com., 2012).

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<sup>&</sup>lt;sup>1</sup> Population viability: the probability that a sufficient number of individuals will survive to reproductive age to ensure continued existence of a group of organisms. (Gemmell et al., 2004)

Even though the benefits of global population management are evident and already recognized in the 1990s, the focus remains on regional management. It is often logistically easier and less expensive to transfer animals between zoos in the same region. With regard to legislation, quarantine requirements are less strict, the overall administrative process is less complicated and communication lines are more effective and (usually) better established. (Lees and Wilcken, 2011) Moreover, some animal transactions between the regions have, in the past, led to the removal of specimens from breeding programmes that were important to the sending region's programme. This was detrimental to local programmes, because surplus specimens could not be transferred to another region anymore (BIAZA, 2012). At that time, planning of breeding programmes was not sufficiently integrated in the zoo culture (Allard et al., 2010). Due to a lack of support by stakeholders, an attempt to develop a global cooperative planning of breeding programmes failed (Allard et al., 2010). Without this support, only a few high-profile species, such as tigers and rhinoceroses, could be taken into global plans (Byers and Wilcken, 2008; Allard et al., 2010)

In 2003, WAZA adopted the Committee for Population Management's (formally known as Committee for Interregional Conservation Cooperation) proposal to develop inter-regional ex-situ management programmes. These Global Species Management Plans (GSMPs) involve collaboration between two or more regional associations in the management of populations with a globally agreed strategy and goals (Byers and Wilcken, 2008). In 2012, six GSMP trials are running for the Sumatran tiger (Panthera tigris sumatrae), yellow-footed rock wallaby (Petrogale xanthopus), golden lion tamarin (Leontopithecus rosalia), red panda (Ailurus fulgens), blue-crowned laughingthrush (Garrulax courtoisi) and Javan gibbon (Hylobates moloch). Even though GSMP strategies and goals are globally agreed on, daily management of these populations remains within the regional breeding programme. Most of these associations' breeding programmes have run for several years and each regional association has developed its own vision and its own way of practice, as described in their respective policies. These policies on population management are well established within the three main regional associations EAZA, AZA and ZAA. Even though participating associations may have the same high aspirations to collaborate, differences between their policies may obstruct successful cooperation. It is therefore necessary to analyse the population management policies of EAZA, AZA and ZAA, in order to make an inventory of all relevant differences that could complicate the collaboration between regional zoo associations when implementing global population management plans.

#### 1.1 Research aim

The aim of this research is "To identify and to give insight in the bottlenecks that could complicate the collaboration between regional zoo associations when implementing global population management plans, based on differences between the population management policies of EAZA, AZA and ZAA."

## 1.2 Research questions

To reach the aim of this research, the following research questions are defined:

#### Main question

Which differences in the population management policies of EAZA, AZA and ZAA complicate the collaboration between regional zoo associations when implementing global population management plans?

## **Sub-questions**

- 1. What are the key elements of the population management policies of EAZA, AZA and ZAA?
- 2. What are the animal-transaction-related key elements and corresponding subjects of the population management policies of EAZA, AZA and ZAA?
- 3. Which subjects related to animal transactions differ in such a way that this might interfere with the successful implementation of global population management plans?

## 2. Methods

## 2.1. Unit of analysis

The unit of analysis consists out of the population management policy documents and the representatives for global population management of the three regional associations, which are listed in detail below:

#### Population management policy documents of EAZA, AZA and ZAA

- EAZA 2012. EAZA Population Management Manual. European Association of Zoos and Aquaria, Amsterdam, the Netherlands
- AZA 2006. AZA Acquisition Disposition Policy
- AZA 2011. Regional Collection Plan (RCP) Handbook. Association of Zoos and Aquariums, Silver Spring, Maryland, United States of America
- AZA 2011. Species Survival Plan® (SSP) Program Handbook. Association of Zoos and Aquariums, Silver Spring, Maryland, United States of America
- ZAA 2010. Policy Masters, 4. Collection Management. Zoo and Aquarium Association, Sydney, Australia
- ZAA 2010. Policy Masters, 5. Species Management. Zoo and Aquarium Association, Sydney, Australia

## Representatives for global population management of EAZA, AZA and ZAA

- Danny de Man, Manager Collection Coordination and Conservation at EAZA
- Candice Dorsey, Director of Animal Conservation at AZA
- Chris Hibbard, Australasian Species Management Program Manager at ZAA

## 2.2. Data collection

The collection of data was divided into two steps. Firstly, all relevant data from the policies had to be sorted and organised, in order to extract all useful data. This was achieved by using the framework analysis method. By sorting and organizing, a framework made of key themes and key elements was created after which the policies of the three organizations could be compared in terms of their contents. Secondly, when it was clear which differences in population management policy content existed between EAZA, AZA and ZAA, all necessary information was collected to start with the second step of data collection.

During this second step, the found differences in policy content were analyzed and thereafter presented to the representatives of EAZA, AZA and ZAA so that interviews could be conducted. The aim of these interviews was to collect the representatives' opinions on the found differences in policy contents and the extent to which these differences could form a complication for their association.

## Framework analysis method

The framework analysis method of Srivastava and Thomson (2009) was applied in order to collect data from the population management policies of EAZA, AZA and ZAA. The method is based on indexing data in themes. Analysis of data can then be conducted after or during the process of data collection and indexing. Framework analysis involves a four-stage process, as adopted from Ritchie and Spencer (1994):

- 1. Familiarisation
- 2. Identifying a thematic framework
- 3. Indexing
- 4. Charting

The first stage of this method, familiarisation, was directed towards the population management policy documents of EAZA, AZA and ZAA. By reading these documents thoroughly and several times, an understanding of the content of the policies was obtained. When recurrent themes were encountered they were noted.

The second stage of the method, identifying a thematic framework, was achieved by using the notes, which were made during the familiarisation stage, to define key themes of all three policies. This framework was then used to filter and classify the data.

During the third stage, indexing, a start was made to distinguish different key elements that fell within the scope of the key themes. These key themes and key elements were written down as headings and subheadings, further building out the thematic framework. Each key theme was numbered and relevant data (text) in the policies were highlighted and provided with the same number (Ritchie and Spencer, 1994), this process was repeated for all policies of EAZA, AZA and ZAA. These steps as described above were repeated three times before a start was made with the next stage.

The last stage, charting, included the arrangement of all pieces of highlighted data in the charts of themes and elements. The relevant elements were copied from the policies and placed in charts that consisted of the headings and subheadings, the previously drawn thematic framework. In order to keep a clear overview, data were always documented in the same order (first EAZA, then AZA and followed by ZAA).

#### **Interview**

The basis for the interview questions was an overview of the 17 subjects containing a difference in the policy texts, missing data, or both. The representatives were provided with a document containing the found differences and/or missing data per subject, as well as actual policy texts of each association per subject. A basic questionnaire (see Appendix I) was designed to prepare the representatives for the interview. This questionnaire contained the following question for each subject: 'Is the difference in subject X problematic for your association when collaborating with another regional association on the implementation of global management plans?' This setup allowed the representatives to add missing data, to reflect on the found differences and to discuss these differences with colleagues prior to the interviews. The additional data, on the subjects for which data were initially missing, were provided before the actual interviews. During the interviews the representatives were informed about these additions. Hereafter they motivated their answers about which subjects they expect to cause a bottleneck and which subjects not.

## 2.3. Data analysis

After conducting the framework analysis method, the collected data were analyzed in order to design the interview for the representatives for global population management of EAZA, AZA and ZAA and to collect further data for the research.

#### Framework analysis method

After completing the framework analysis method, the collected data were analyzed through a process of repeatedly mutually discussing, making schedules and thinking about the collected data. The outcome of this process directed to the key elements of the population management policies of EAZA, AZA and ZAA.

Once the key elements of the policies were identified, the specific key elements concerning animal transactions were selected by the same process as mentioned above. By using the same process of repeatedly mutually discussing, making schedules and thinking about the animal transaction related key elements, a number of subjects are selected based on their importance to the successful implementation of global population management plans.

The policies of EAZA, AZA and ZAA were compared on the content of those subjects, in order to find the differences between the regional organisations. The found differences were initially classified into three categories; 1) Lack of data, 2) Difference in policies and lack of data, 3) Difference in policies. These categories formed the basis for the interview questions.

#### Interview

The data gathered during the interviews with the representatives were analyzed by comparing the representatives' statements. In some cases none of the representatives expected a bottleneck, but in other cases one or more representatives did foresee a bottleneck for certain subjects.

## 3. Results

# 3.1. Key themes and key elements in population management policies

In order to be able to identify differences within the policy documents, a framework analysis method was applied. After thoroughly reading the documents during the familiarization process, a thematic framework was identified. Recurrent themes and possible related themes in the documents were noted during this process. This resulted in a framework that is built up of ten key themes (see table 1). After the establishment of this thematic framework, the same process made it possible to identify corresponding key elements for each theme.

Table 1 shows an oversight of the thematic framework including the key themes in the first column and the corresponding key elements in the second column.

Table 1 Population management key themes and corresponding key elements

Key themes	Key elements
Collection management	Membership categories
	Regional Association Office
	Programme Committee
	Taxon Advisory Groups (TAGs)
Management programmes	General programmes
	Programme criteria
	Programme participation
	Participation rules
Species selection for management programmes	Selection decision making
	Selection criteria
Regional collection plans	RCP responsibility
	RCP development procedure
	RCP content
Species management	Programme management positions
	Coordinator requirements
	Coordinator responsibilities
Population management plans	PMP responsibility
	PMP development procedure
	PMP content
Husbandry manuals	Manual responsibility
	Manual development procedure
	Manual content
Studbooks	Studbook responsibility
	Studbook development procedure
	Studbook content
Breeding and transfer recommendations	Report responsibility
	Recommendation procedure *
Animal transfers	Animal acquisition *
	Animal disposition *
	Ownership *
	Animal transport *

<sup>\*</sup> Key elements related to animal transactions

## 3.2. Key elements with regard to animal transactions

The aim of GSMPs is to establish a multi annual management plan for a species in at least two participating regions. Populations will stay under regional management, with GSMP goals as framework for recommendations. However, GSMP goals may for example require translocations of specimens, or decision-making about the import of specimens from the wild. These translocations, importations, reintroductions etc. can be identified as being related to animal transactions and are therefore considered to have a high impact on inter-regional cooperation. Collisions of policies may be expected in this field and therefore this research is aimed at the animal transaction related key elements, which are marked with an asterisk (\*) in table 1. Some key elements cover a broad range of aspects and need further division into distinct subjects.

Table 2 is an extract of table 1 and shows the subjects that correspond with the animal transaction related themes and elements. The actual policy content for each of these subjects form the basis of the analysis in chapter 3.3.

Table 2 Animal transaction related key themes, key elements and subjects

Key themes	Key elements	Subjects
Breeding and transfer	Recommendation procedure	Recommendation decision
recommendations		Recommendation implementation
		Violation of recommendations
Animal transfer	Animal acquisition	Acquisition decision
		Acquisition responsibility
		Law and regulation regarding acquisition
		Institution requirements for acquisition
		Acquisition finances
		Acquisition from external parties
		Acquisition from the wild
		Violations of acquisition policies
	Animal disposition	Disposition decision
		Disposition responsibility
		Laws and regulation regarding dispositions
		Disposition finances
		Disposition to external parties
		Reintroduction
		Violations of disposition policies
	Ownership	Members
		Ownership agreements
	Animal transport	Transport coordination and responsibility
		Transport finances

## 3.3. Differences that could lead to bottlenecks

This chapter presents all animal transaction related subjects per theme and indicates which subjects are expected to cause bottlenecks when implementing GSMPs. The subjects listed in table 2 are further analyzed by comparing the actual text in the policy documents in order to find differences between the data for each organization. In case of missing data in the policies, the analyses are based on additional data provided by the representatives during the interviews.

The actual content (text) of the policies and the additional information from representatives for GSMPs, on which this analysis is based, is included in Appendix II and Appendix III.

### 3.3.1 Recommendation procedure

The key element Recommendation procedure refers to the animal-by-animal recommendations with regard to transfers of an individual or group from one place to another and consists of the following three subjects:

#### **Recommendation decision**

The recommendations for breeding, non-breeding or transferring of individual animals aim to reach and maintain a sustainable population. At EAZA and ZAA it is the species coordinator who makes annual recommendation decisions. During the establishment of these recommendations, the wishes and possibilities of individual institutions are taken into account. At AZA, a population biologist of the Population Management Center and the species coordinators develop recommendations for program populations every three years, after which each institution that participates in the breeding programme has the right to provide feedback. Due to the differences in procedures of decision-making, this subject could cause a bottleneck when implementing GSMPs.

## **Recommendation implementation**

In the context of a breeding programme and its goals and objectives, recommendations are made for every participating institution. The success of breeding programmes depends largely on the implementation of all recommendations by all participants. This subject concerns the level of obligation that is linked to the implementation of recommendations. The policy documents of all three associations state that all participating institutions should implement the recommendations. Due to the similarity between the policies, it is expected that this subject will not cause any bottlenecks when implementing GSMPs.

## **Violation of recommendations**

Ignoring breeding and transfer recommendations after endorsement is considered as a violation of these procedures. A small difference between EAZA and AZA was found in the procedures on the consequences of violations. EAZA has developed an action plan, which describes the measures to be taken against an institution that violates the recommendations. AZA has an action plan as well, but the described measures operate initially on staff-level rather than on institutional level. No data could be found in the ZAA policy documents, but ZAA has a strong set of policies and procedures around their Code of Ethics. This code requires ZAA members to follow all policies and procedures. There is no breach policy for the animal management area as such, but in case of violations, procedures and methods are similar to the other associations. Even though this subject is not mentioned in ZAA's population management policy, they do have a policy regarding Violation of recommendations similar to those of EAZA and AZA. Therefore, it is expected that this subject will not cause any bottlenecks when implementing GSMPs.

#### Overview

Table 3 outlines the subjects above and can be seen as a short summary of the text. The first column lists the subjects. The next columns show per subject whether relevant data were found in the policy documents (column 2), if any differences were found between the associations' policies (column 3) and if this difference might lead to a possible bottleneck (column 4). This table can be read as '+' meaning 'yes' and '-' meaning 'no'.

Table 3 Recommendation procedure subjects overview

	Data in policy		icy	Difference	Possible
Subject	EAZA	AZA	ZAA	between policies	Bottleneck?
Recommendation decision	+	+	+	+	+
Recommendation implementation	+	+	+	-	-
Violation of recommendations	+	+	_	+	-

## 3.3.2 Animal acquisition

The key element of Animal acquisition refers to the ways an institution can obtain its animals, such as by the way of propagation, trade, donation, loan, purchase, rescue or capture from the wild. The acquisition of animals must be in compliance with the associations' procedures. These procedures are divided in the following eight subjects that are important with regard to animal transactions:

#### **Acquisition decisions**

The decision of acquiring breeding programme specimens might cause conflicts with the recommendations for a given programme. For the benefit of a GSMP, it is important that the associations have similar views about the procedures of acquiring animals. The policies of EAZA, AZA and ZAA are quite similar; all acquisitions have to be in line with the recommendations and have to be communicated in advance with the programme coordinator. However, EAZA additionally states that transfers should not be arranged via brokers or dealers. Due to the difference in policy, this subject could cause a bottleneck when implementing GSMPs.

#### **Acquisition responsibility**

This subject refers to the level of management within the associations that is responsible for the implementation of the acquisitions. In case of any problems or conflict situations, it is important to know where the ultimate responsibility in an institution lies. AZA and ZAA both state in their policies that an institution's director or CEO is responsible for acquisitions. The associations facilitate recommendations, but the implementation rests with the institutions. No data could be found about acquisition responsibility in the EAZA policy documents, but the representative confirms that the EAZA procedure is similar as described in the AZA and ZAA policies. Therefore, this subject is not expected to cause a bottleneck when implementing GSMPs.

#### Law and regulation regarding acquisition

The acquiring, holding and transferring of animals are subject to different laws and regulations. In order to benefit particular transactions and population management in general it is important that prior to, during and after all acquisition processes all stakeholders comply with these laws and regulations. This subject concerns the way the associations refer to law and regulations with regard to acquisitions in their policy documents. AZA and ZAA have quite similar policies and both associations highlight the same issues. No data could be found in EAZA's policy, but the representative confirms that similar statements can be found in the EAZA constitution. Therefore is concluded that no differences exist concerning this subject and it can be assumed that this subject will not<sup>2</sup> cause any bottlenecks when implementing GSMPs.

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<sup>&</sup>lt;sup>2</sup> Policy wise no bottlenecks are expected, but the representatives add that different (inter)national laws and regulations might hinder inter-regional cooperation. This falls beyond the scope of this research but should be considered as a bottleneck.

#### **Institution requirements for acquisition**

This subject concerns the minimum standards for the holding of programme species. It is relevant to know if the requirements for member institutions are similar for each association. Although not every association highlights the same aspects of requirements for institutions, each has incorporated requirements with regard to animal management and/or welfare in its policy documents. Furthermore, WAZA (2003) states in its Code of Ethics and Animal Welfare that "Members will ensure institutions receiving animals have appropriate facilities to hold the animals and skilled staff who are capable of maintaining the same high standard of husbandry and welfare as required of WAZA members." Therefore it is concluded that no differences exist concerning this subject and it is not expected that this subject will cause any bottlenecks when implementing GSMPs.

## **Acquisition finances**

The act of obtaining ownership of a commercial item usually involves some kind of (financial) compensation in return. In case of programme animals, the opinions are divided whether programme animals can be considered as having a commercial value. When financial barriers occur, it might pose a risk to the implementation of recommended animal transfers. EAZA and ZAA have firm policies regarding finances. Both associations stress the non-commercial status of program animals and will not allow their members to get involved in profit-making with regard to program animals. However, AZA does not have a policy about finances. AZA member institutions are free to decide if animals are being traded, transferred as a gift or sold to another institution. Due to the absence of data in AZA's policy and due to their standard practice concerning transaction finances, it is expected that this subject could cause a bottleneck when implementing GSMPs.

## Acquisition from external parties

The decision can be made to acquire a specimen from an institution that is not a member of a regional association. The suitability of these non-member institutions is based on the associations' requirements. Differences in policy are found with regard to this subject, since each association highlights different requirements for external parties. EAZA focuses on the origin of the specimens and on which breeding techniques the institutions use. AZA obliges its members to acquire specimens only from known legal institutions that operate according to AZA's professional standards. ZAA focuses on the legal status of a source and its standard for animal welfare. Due to the differences in the specified set of requirements for the inclusion of external parties, it can be concluded that there is a difference in policy content with regard to this subject. Therefore, it is expected that this subject could cause a bottleneck when implementing GSMPs.

## Acquisition from the wild

Acquisition from the wild is referred to as a choice to be made following a thorough investigation of the necessity of acquiring specimens from their native range and the impact on the wild and captive populations. Although ZAA has no written policy on this subject, the association has to comply with strict government requirements. Governmental requirements are also described in both EAZA's and AZA's policies. If an acquisition from the wild would take place, ZAA will support this when it happens for a very good reason and under a population management framework. Both EAZA and AZA state this in their policies, emphasising a thorough examination of the impact on the wild population. ZAA is policy wise more aligned with EAZA, where any acquisition should be approved in advance by the program coordinator. Due to the fact that ZAA has similar statements as EAZA and AZA, it is not expected that this subject will cause any bottlenecks when implementing GSMPs.

## Violations of acquisition policies

Ignoring the acquisition procedures as stated in the policy documents is considered as a violation of these policies. It is therefore relevant to know which consequences are linked with violations of the acquisition policies for institutions in the different regions. Due to the same reason as mentioned for 'Violations of recommendations', it is not expected that this subject will cause any bottlenecks when implementing GSMPs.

#### Overview

Table 4 outlines the subjects above and can be seen as a short summary of the text. The first column lists the subjects. The next columns show per subject whether relevant data were found in the policy documents (column 2), if any differences were found between the associations' policies (column 3) and if this difference might lead to a possible bottleneck (column 4). This table can be read as '+' meaning 'yes' and '-' meaning 'no'.

Table 4 Animal acquisition subjects overview

	Data in policy			Difference	Possible
Subject	EAZA	AZA	ZAA	between policies	Bottleneck?
Acquisition decision	+	+	+	+	+
Acquisition responsibility	-	+	+	-	-
Law and regulation regarding acquisition	-	+	+	+	-
Institution requirements for acquisition	+	+	+	+	-
Acquisition finances	+	-	+	+	+
Acquisition from external parties	+	+	+	-	+
Acquisition from the wild	+	+	-	+	-
Violations of acquisition policies	+	+	_	+	-

## 3.3.3 Animal disposition

The key element Animal disposition refers to the ways an institution can remove its animals, such as by the way of trade, donation, loan, sale and reintroduction. The disposition of animals must be in compliance with the associations' procedures. These procedures are divided in the following seven subjects that are important with regard to the disposition of breeding programme specimens:

#### **Disposition decision**

The decision of disposing breeding programme specimens might cause conflicts with the recommendations for a given programme. For the benefit of a GSMP, it is important that the associations have similar views about the procedures of disposing specimens. Due to the same reason as mentioned for 'Acquisition decision', it is expected that this subject could cause a bottleneck when implementing GSMPs.

#### **Disposition responsibility**

This subject refers to the level of management within the associations that is responsible for the implementation of the dispositions. In case of any problems or conflict situations, it is important to have an agreement about where the ultimate responsibility in an institution lies. In case of a disposition from an AZA institution, the institution's director or CEO is responsible. No data could be found concerning the responsibility for animal dispositions in the EAZA and ZAA, but the representatives of both associations state that this is similar to 'Acquisition responsibility', where the associations provide recommendations and leave the implementation to the institutions' CEO or director and thus similar to AZA's policy. Therefore, this subject will not could cause a bottleneck when implementing GSMPs.

## Laws and regulation regarding dispositions

The holding, transferring and disposition of animals are subject to different laws and regulations. In order to benefit particular transactions and population management in general it is important that prior to, during and after all disposition processes all stakeholders comply with these laws and regulations. Due to the same reason as mentioned for 'Law and regulation regarding acquisition', it can be assumed that this subject will not cause any bottlenecks when implementing GSMPs.

#### **Disposition finances**

The act of transferring ownership of a commercial item usually involves some kind of (financial) compensation in return. In case of programme animals, the opinions are divided whether programme animals can be considered as having a commercial value. When financial barriers occur, it might pose a risk to the implementation of recommended animal transfers. Due to the same reasons as mentioned for 'Acquisition finances', it is expected that this subject could cause a bottleneck when implementing GSMPs.

#### **Disposition to external parties**

In a GSMP perspective, the inclusion of external parties as participants may increase the success of the breeding programmes. It is therefore important to reach consensus about the suitability of different external parties to which specimens can be disposed. In this case external parties are considered to be non-member institutions and member institutions of other regional associations. Species involved in GSMPs are considered too valuable to leave the GSMP, therefore institutions like circuses etc. are not taken into account as external parties in this research. It is also expected that eventual surplus specimens in a particular region will be relocated to another region, instead of leaving a programme as surplus specimens. Differences in policies are found with regard to this subject; External parties can only obtain specimens from EAZA institutions if they are listed as an approved non-EAZA EEP participant, as for which the institution requirements are the same as full members. For external parties that want to obtain specimens from AZA institutions applies that they must have the same mission as full AZA members and must have proper resources to care for the animals. External parties that receive a ZAA programme animal must either have an animal welfare policy, or be able to demonstrate the ability to cater for the welfare of the animal. Programme species may leave the program only when they are part of a formal agreement or under the agreed framework of a wildlife agency recovery program. Due to the differences in the specified set of requirements for the inclusion of external parties, it can be concluded that there is a difference in policy content with regard to this subject. Therefore, it is expected that this subject could cause a bottleneck when implementing GSMPs.

#### Reintroduction

In some cases the decision can be made to release animals in their native range in the wild. This process includes the reintroduction of specimens into an area where the species was formerly present and the restocking of specimens in to an area where a wild population of a given species still exists. EAZA has a strict policy on this subject, stating that no animals can be released into the wild unless this is done with all preconditions set out in the IUCN/SSC Guidelines for Reintroduction (IUCN,1995). AZA has a Reintroduction Scientific Advisory Group (SAG), which mission is "to develop cooperative relationships between AZA, its Animal Programs, its accredited institutions, and the scientific community of reintroduction specialists and provide technical advice to enhance reintroduction procedures for AZA Animal Programs." ZAA states that the reintroduction or restocking of an ASMP Program Species should be under the facilitation of the relevant recovery group within each jurisdiction and must be consistent with endorsed recommendations. An application for the release of an ASMP species must be made to the ASMP Committee and must be approved by local, state, federal and if necessary international governments, when no recovery group exists. Due to the fact that the associations highlight different aspects in their policies about reintroduction, it is expected that this subject could cause a bottleneck when implementing GSMPs.

## Violations of disposition policies

Ignoring the disposition procedures as stated in the policy documents is considered as a violation of these policies. It is therefore important to know which consequences are linked with violations of the disposition policies for institutions in the different regions. Due to the same reason as mentioned for 'Violations of recommendations', it can be considered that a difference in policy exists with regard to this subject. However, it is not expected that this subject will cause any bottlenecks when implementing GSMPs.

#### Overview

Table 5 outlines the subjects above and can be seen as a short summary of the text. The first column lists the subjects. The next columns show per subject whether relevant data were found in the policy documents (column 2), if any differences were found between the associations' policies (column 3) and if this difference might lead to a possible bottleneck (column 4). This table can be read as '+' meaning 'yes' and '-' meaning 'no'.

Table 5 Animal disposition subjects overview

	Data in policy			Difference	Possible
Subject	EAZA	AZA	ZAA	between policies	Bottleneck?
Disposition decision	+	+	+	+	+
Disposition responsibility	-	-	+	-	-
Law and regulation regarding disposition	-	+	+	+	-
Disposition finances	+	-	+	+	+
Disposition to external parties	+	+	+	+	+
Reintroduction	+	+	+	+	+
Violations of disposition policies	+	+	-	+	-

### 3.3.4 Ownership

This key element concerns the ownership of breeding programme specimens. It is important to know which animal is legally owned by which institution. Clearness about ownership prevents responsibility issues for a specimen (and its offspring) and is legally required in case of species included in CITES Appendix I.

## Membership

The associations maintain different forms of memberships, which are related to different accreditation requirements and to different benefits. One of these requirements and benefits at the same time is the participation in breeding programmes. The different forms of memberships are examined for this subject in order to indicate which institutions must participate in breeding programmes and at which level. Differences exist concerning the assigning of memberships to institutions that do not comply (yet) with the accreditation requirements, or that differ in other ways from the requirements for full membership, like the geographic location of the institution or the opening for the public. In general the policy contents are similar enough to not cause any bottleneck when implementing GSMPs.

#### **Ownership agreements**

This subject concerns the ownership agreements, which are made to clarify ownership of specimens (and their offspring), as well as details on the responsibilities of owners and holding institutions. A difference was found in the fact that EAZA and ZAA prescribe in which cases institutions should use loan agreements and where responsibility for the animals (and produced offspring) lies in such cases. AZA does not have a policy on ownership agreements, nor a template for agreements. It is a responsibility for the institutions and owners, since AZA does not tag ownership in their studbooks. Ultimately, species are owned by individual institutions that can decide whether an animal is transferred or not. In some other cases, regarding all associations, species are owned by governments, in which case transfers of those animals might be subject to government's approval. Due to the difference in policy, this subject could cause a bottleneck when implementing GSMPs.

#### Overview

Table 6 outlines the subjects above and can be seen as a short summary of the text. The first column lists the subjects. The next columns show per subject whether relevant data were found in the policy documents (column 2), if any differences were found between the associations' policies (column 3) and if this difference might lead to a possible bottleneck (column 4). This table can be read as '+' meaning 'yes' and '-' meaning 'no'.

Table 5 Ownership subjects overview

	Data	a in poli	icy	Difference	Possible
Subject	EAZA	AZA	ZAA	between policies	Bottleneck?
Owners	+	+	+	+	-
Ownership agreements	+	_	+	+	+

## 3.3.4 Transport

This key element concerns the transportation of specimens from one zoo to another. In order to follow the breeding recommendations it is necessary to bring together suitable breeding pairs that are held in different institutions. Animal transport is the actual process of movement of a specimen from one institution to another. This key element concerns the implementation of, and responsibility for animal transports, as well as the financial aspects that are involved in this process.

#### Transport coordination and responsibility

In order to make the transport process as successful as possible, consensus about coordination and responsibility of a transport is necessary. With regard to the coordination part of this subject, no differences in policy were found. All associations emphasise that the coordination of transports should be done by appropriate institutional staff. EAZA is the only association that assigns the responsibility for the means of transport in its policy to the sending institution. According to the EAZA representative, this is a legal requirement in Europe. Both AZA and ZAA do not have a policy on transport responsibility and leave this decision to the institutions. Due to the European legal requirement, this subject could cause a bottleneck when implementing GSMPs.

#### **Transport finances**

Besides transport costs, transfers of animals could involve some kind of finances like medical expenses and extra training hours to prepare an animal for shipping. These costs can be seen as costs related to the transport of an animal. When financial barriers occur due to this way of practice, they might pose a risk to the implementation of recommended animal transfers. ZAA is the only association that refers to this subject by stating that: "it is standard practice for the receiving institution to pay all reasonable costs for transport (including the costs of crates if they are not returned to the sender at the receiver's expense)." EAZA and AZA do not mention this subject in their policies. For EAZA however, it is standard practice that the receiving institution covers all reasonable transport costs. For AZA, it is dependent on the institutions which party will pay the transport costs. Due to this difference in policy, this subject could cause a bottleneck when implementing GSMPs.

#### Overview

Table 7 outlines the subjects above and can be seen as a short summary of the text. The first column lists the subjects. The next columns show per subject whether relevant data were found in the policy documents (column 2), if any differences were found between the associations' policies (column 3) and if this difference might lead to a possible bottleneck (column 4). This table can be read as '+' meaning 'yes' and '-' meaning 'no'.

Table 7 Animal transport subjects overview

	Data in policy			Difference	Possible
Subject	EAZA	AZA	ZAA	between policies	Bottleneck?
Transport coordination and responsibility	+	_	_	+	+
Transport finances	-	-	+	+	+

## 3.4 Bottlenecks according to the representatives of EAZA, AZA and ZAA

This chapter contains an analysis of the possible bottlenecks that resulted from the comparison of the policies of the regional zoo associations, as well as an elaboration of the representatives' answers. During the interviews the representatives of the regions indicated which of these subjects they expect to cause a bottleneck and outlined the reason why they expect that. This ultimately leads to a short conclusion whether a subject is expected to cause a bottle when implementing GSMPs. The exact answers to the interview questions can be found in Appendix III.

#### **Recommendation decision**

AZA's representative stated that this subject will probably not cause any problems and ZAA's representative expected that this subject will not be a major issue, given that the structure of global management is to create a master plan to which each association subscribes and works their program towards. The fact that EAZA and ZAA would normally roll out annual recommendations and AZA does this every three years will therefore not be problematic. EAZA's representative added that of the three associations, EAZA's recommendation procedures are arguably most time consuming due to a lower availability of professional guidance compared to AZA. He does however not expect this to influence the level of agreement on this subject. Therefore, it is not expected that this subject will cause any bottlenecks when implementing GSMPs.

#### **Acquisition decision**

About this subject, the AZA representative stated that "As long as everyone is communicating it should not be an issue." In AZA's structure, a director or curator can make the decision to acquire animals. Any sort of acquisition should be discussed with the species coordinator. It should nevertheless be noted that AZA will start reviewing their Acquisition/Disposition policy in autumn 2012. EAZA's representative assumes that the policies are all rather comparable. He suggested that the EAZA policy is somewhat stricter that AZA's policy, but it is not implemented as strict in many cases. The representative of ZAA added the fact that in some cases of acquiring animals from another region, some regions do not have policies in which other regions are seen as participants. Other regional associations are seen as non-members instead. He added that the representatives have been collectively talking about all amending their policies to a construction in which other regions are seen as partners and peers instead of just as non-members. Therefore, it is not expected that this subject will cause any bottlenecks when implementing GSMPs.

#### **Acquisition finances**

Both representatives of EAZA and ZAA stated that their associations are strictly against paying money to acquire programme animals. Moreover, they expect that finances will be a bottleneck, due to the fact that AZA has no policy on this subject. According to AZA's representative there are no hard rules on finances, she therefore expects this subject to be a discussion for some species. For these reasons, it is expected that this subject could cause a bottleneck when implementing GSMPs.

### **Acquisition from external parties**

All representatives assume that their associations' views on this subject are rather similar. However, the representative of EAZA mentioned that acquisitions from animal dealers will be problematic, since this is not allowed according to EAZA's policy. AZA's representative stated that it depends on the external party from which a specimen is acquired and suggested that external parties should be approved case by case. For ZAA, this subject could be problematic when a specimen would not be a genuine asset to their region, since transports to the Australian region are in general expensive. The representative added that external parties will get a background check to assure that an acquired specimen is not a cast-off. It is however expected that certain topics, including acquiring animals from external parties, will be discussed prior to the implementation of GSMPs in order for all parties to reach consensus. Therefore, it is expected that with clear communication about approved external parties, this subject is not an irreconcilable bottleneck.

#### **Disposition decision**

EAZA's representative assumes that the policies are all rather comparable. He suggested that the EAZA policy is somewhat stricter that AZA's policy, but it is not implemented as strict in many cases. However, the representative mentioned that dispositions to animal dealers will be problematic, since this is not allowed according to EAZA's policy. According to the representative of ZAA, their program animals are not available for non-members of the association. The representative explained that ZAA has this policy due to the fact that specimens have ended up in private zoos or private wildlife parks that were not part of the association and were therefore not subject to ZAA's Code of Conduct. These practises are considered harmful to the association's reputation. Another issue for ZAA is that some high-profile Australian species are part of the Government ambassador's agreement. In those cases it is a legal requirement that specimens stay in cooperative programmes and may not leave those programmes. It is however expected that certain topics, including the disposition of specimens, will be discussed prior to the implementation of GSMPs in order for all parties to reach consensus. Therefore, it is not expected that this subject could cause a bottleneck when implementing GSMPs.

## **Disposition finances**

For the same reason as described for Acquisition finances, it can be concluded that all representatives expect that this subject could cause a bottleneck when implementing GSMPs.

## **Disposition to external parties**

According to AZA's representative, this subject could cause a bottleneck for some species and she suggested discussing this case-by-case. The representative of EAZA does not expect any bottlenecks, but mentioned that "it is very important to follow advice from the regional association when discussing/considering as institution that is not a member as candidate for inclusion in the GSMP." On the other hand, ZAA does not support dispositions to third parties. Due to fear of reputational damage, as earlier explained for the disposition decision subject, ZAA's representative is concerned that specimens contributed by a ZAA member would leave the program after the transfer from Australia. It is however expected that certain topics, including dispositions to external parties, will be discussed prior to the implementation of GSMPs in order for all parties to reach consensus. Therefore, it is expected that with clear communication about approved external parties, this subject is not an irreconcilable bottleneck.

#### Reintroduction

According to EAZA's representative, it would be problematic if reintroductions would take place without following the IUCN Guidelines or consulting the IUCN Reintroduction Specialist Group. Even though AZA encourages members who are planning reintroductions to follow the IUCN Guidelines, there is no standard that obliges AZA members to participate in the IUCN RSG. The representative of ZAA stated that ZAA would acknowledge the IUCN Guidelines, but they would not necessarily be a prerequisite for introductions, since ZAA is answerable to the government and not to the IUCN. For other regions, ZAA would honour and acknowledge the IUCN, but some pragmatism is also expected. Due to the fact that EAZA's policy is very strict about following the IUCN, it is expected that this subject could cause a bottleneck when implementing GSMPs.

## Ownership agreements

AZA's representative stated that in some cases this subject should be considered to be a bottleneck, when a species is owned by a government that does not want to comply with GSMP recommendations. In some cases of high-profile species, all captive individuals are owned by governments. Zoological institutions can only acquire those animals within the framework of a loan agreement, which states that all specimens and their offspring will always remain owned by a government. Governments are not members of any regional associations and are therefore not obliged to comply with any recommendations. This should be considered when selecting species for GSMPs, even though examples of good cooperation exist; a GSMP species that is owned by a government is the golden lion tamarin (*Leontopithecus rosalia*). All captive individuals of this species are loaned out to institutions by the Brazilian government, which holds ownership of all living specimens at all times.

ZAA's representative stated that the Australian region has some government owned high-profile species as well, but he does not consider this to be problematic. It is expected that with clear communication with governments about the commitments and ownership agreements for GSMPs, this subject will not cause an irreconcilable bottleneck.

## Transport coordination and responsibility

Even though all associations state that the coordination and responsibility of a transport sits with the institutions, both the representative of EAZA and AZA think this subject could be a bottleneck. EAZA's representative suggested to harmonize their policies fully regarding this subject, due to the importance of conformity regarding this subject. It is however expected that certain topics, including transport coordination and responsibility, will be discussed prior to the implementation of GSMPs in order for all parties to reach consensus. Therefore, it is not expected that this subject could cause a bottleneck when implementing GSMPs.

## **Transport finances**

Both for EAZA and ZAA, it is standard practice that the receiving institution covers all reasonable costs for transport. However, AZA has not policy regarding finances, which according to all representatives might cause a bottleneck when implementing GSMPs. EAZA's representative suggested harmonizing their policies fully when new GSMPs are developed. It is assumed that this subject will be discussed prior to the implementation of GSMPs in order for all parties to reach consensus. Therefore, it is not expected that this subject could cause a bottleneck when implementing GSMPs.

## 4. Discussion

The aim of this research was to determine which differences in population management policy between EAZA, AZA and ZAA could complicate the implementation of more GSMPs in the future. Based on a thorough analysis, all relevant differences in policies are found and the bottlenecks that might complicate the implementation of GSMPs are identified. The framework analysis method proved to be very suitable for this type of qualitative research. The method provided a helpful tool to deal with large bodies of text, such as the population management policy documents. The results of this research indicate that the subjects Acquisition finances, Disposition finances and Reintroduction are expected to cause a bottleneck when implementing GSMPs.

Concerning the subjects about finances, the only solution seems to be that AZA formulates a policy concerning the non-commercial value of GSMP species. This is the case for the six trial GSMPs, but it should be noted that the current trial GSMP species are not considered as high profile species. When GSMPs are to be set up in a later stage for high profile species like for example elephants, gorillas and orang-utans, finances might become more important and might therefore become a real bottleneck. In case of (smaller) lower-profile species with relatively lower transport costs, finances might not become bottlenecks at all. The idea to deal with these subjects on a case by case base might therefore be a good suggestion. A general recommendation that could also help to solve financial bottlenecks is to raise awareness and to promote the benefits of GSMPs in order to create support among member institutions.

In addition, the subject of reintroduction could cause a bottleneck, since EAZA has a strict policy on only following the IUCN (1995) Guidelines for reintroduction, while following these guidelines is not a prerequisite for reintroduction projects involving AZA and ZAA members. On the one hand, this difference is remarkable since WAZA (2003) states in its Code of Ethics and Animal Welfare that "All release-to-the wild programmes must be conducted in accordance with the IUCN/SSC/Reintroduction Specialist Group guidelines for reintroduction." On the other hand, the IUCN (1995) guidelines state that "These guidelines are intended to act as a guide for procedures useful to reintroduction programmes and do not represent an inflexible code of conduct. (...) It should be noted that reintroduction is always a very lengthy, complex and expensive process." and "A reintroduction requires a multidisciplinary approach involving a team of persons drawn from a variety of backgrounds. As well as government personnel, they may include persons from governmental natural resource management agencies; non-governmental organisations; funding bodies; universities; veterinary institutions; zoos (and private animal breeders) and/or botanic gardens, with a full range of suitable expertise." This might indicate that in practice, all policies will be endorsed without causing a conflict and it is therefore doubtful if this subject will cause an irreconcilable bottleneck.

Even though the subjects Acquisition decision, Acquisition from external parties, Disposition decision, Disposition to external parties, Ownership agreements, Transport coordination and responsibility and Transport finances do have significant differences in policy, they are not considered to be irreconcilable bottlenecks. However, if not discussed they can become bottlenecks when implementing GSMPs. In order to prevent this, it is recommended to develop joint statements for GSMP species or to fully harmonize the policies regarding these subjects. In addition, it is suggested by AZA's representative that subjects concerning external parties should be discussed case by case, to determine which external parties become partners in a GSMP.

Further, the subjects regarding law and regulation might cause bottlenecks that are beyond the scope of this research. Indicating that even though the policies of EAZA, AZA and ZAA are very similar, practical problems can occur. It is suggested that, in practice, issues with restrictive (veterinary) regulations, different permitting requirements and trade restrictions will hinder global cooperation (Allard et al, 2010; Lees and Wilcken, 2011; Gusset, 2012). The representative of EAZA confirmed that law and regulation can be a complicating factor to inter-regional transports of zoo animals.

Difficulties caused by diversified law and regulation might not be totally solvable. It is therefore suggested that all associations take into account that their members could have more difficulties with GSMP transports to other regions. Some assistance with the planning of these transports is recommended, as it could be helpful to member institutions and beneficial to reach GSMP goals.

Another practical problem, not covered in any of the associations' policies, is the geological distance that specimens have to travel when recommended to be transferred to another region. Due to these distances, all inter-regional transports shall go by airplane. As a result, the preparation of these transports requires decent planning, corresponding health and quarantine requirements of both the sending and the receiving country and other additional requirements to meet the IATA Live Animal Regulations (IATA-LAR, 2005) as mandatory for each transport by air. In order to prevent unequally divided costs and/or putting financial pressure on a few institutions, it is recommended to discuss the practical problems caused by the geological distance during GSMP development.

The division of other financial aspects that are not covered in the policy documents, like contributions to *in-situ* conservation and reintroduction projects, could be issues that might be good to discuss with all relevant stakeholders prior to the implementation of species specific GSMPs.

Summarizing, all bottlenecks due to differences in policy could be solved by clear communication or joint statements aiming towards a communal goal of the successful implementation of GSMPs. Or as one respondent, when asked what he sees as "being the most important obstacle to global population management" at the 2011 WAZA Annual Conference in Prague (Gusset, 2012), put it so aptly: "There is no real obstacle. If we all want this, it can be done. So if there is an obstacle, it would be that we do not really all want this."

# 5. Recommendations

After a thorough analysis of the population management policies of EAZA, AZA and ZAA, the following recommendations have been made to benefit the successful implementation of global species management plans:

- Raise awareness and promote benefits of Global Species Management Plans among member institutions.
- Develop joint statements for GSMP species or fully harmonize the policies regarding subjects with initial differences in policies.
- Provide assistance with the planning of inter-regional transports to member institutions.
- Discuss practical limitations and (financial) impact on participating institutions prior to the implementation of GSMPs.

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# Appendix I 'Questionnaire for representatives'

Dear representative for global population management,

We are Ayla van Ravenswaaij and Madelon Rusman, students in Wildlife Management at Van Hall Larenstein, University of Applied Sciences in the Netherlands. By order of Danny de Man, manager Collection coordination and Conservation at EAZA, we are writing our final thesis on 'Global population management policy in regional zoo associations'. The aim of this research is to identify and to give insight in the bottlenecks that could complicate the collaboration between regional zoo associations when implementing global population management plans.

In order to do this, we have analysed the population management policy documents of EAZA, AZA and ZAA. A framework analysis method was used to determine the key elements of the documents. The content (actual policy texts) of these elements was compared and this resulted in a list of subjects with differences in policy content and subjects with a lack of essential data. This questionnaire is developed in order for you to prepare yourself for an interview with us, during which we would like to discuss these differences with you.

The 17 subjects with either differences or a lack of data are listed in the table on page 2 of this document. As example, look at the first subject 'Recommendation decision' and ask yourself: 'Is the difference in 'Recommendation decision' a problem for your association when collaborating with another regional association on the implementation of global management plans?' You can answer this question by ticking 'Yes', 'No' or 'Perhaps'. For more information see the enclosed appendix with actual policy text of each association. If your answer is 'Yes' or 'Perhaps', we would like to know the motivation for your answer. This will be discussed during the interview.

As you will see, we were not able to find data of one or more associations in subjects 5-17. If data is missing for your association, would you be so kind to provide us with additional information on that subject. If data is missing for the other association(s), please try to estimate if this subject could be problematic to your association. If this is not possible, you may skip that subject and we will discuss it during the interview.

Hopefully we have provided enough information for you to fill out the questionnaire. If there are any uncertainties, or if you have any questions, please do not hesitate to contact us.

Thank you in advance, Ayla van Ravenswaaij Madelon Rusman

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# Questionnaire

Diff	erence	No	Perhaps	Yes
1	Recommendation decision			
2	Acquisition decision			
3	Acquisition from external parties			
4	Disposition decision			
Diff	erence – no data	No	Perhaps	Yes
5	Violations of recommendations			
6	Violations of acquisition policies			
7	Violations of disposition policies			
No data		No	Perhaps	Yes
8	Acquisition responsibility			
9	Acquisition finances			
10	Disposition responsibility			
11	Acquisition from the wild			
12	Disposition finances			
13	Disposition to external parties			
14	Reintroduction			
15	Ownership agreements			
16	Transport coordination and responsibility			
17	Transport finances			

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## 1. Recommendation decision

## **Analysis**

The annual decision for breeding, non-breeding, transfers and other recommendations per individual in the EAZA populations is made by the EEP Coordinator (and his/her Species Committee). In order to ensure the production of an effective AZA Breeding and Transfer Plan, including recommendations for breeding pairs and transfers, the SSP Coordinator must work with the PMC, a PMC Adjunct or an approved SPMAG Advisor. The annual breeding and/or transfer recommendations for ZAA institutions are made by the relevant Species Coordinator.

#### Conclusion

There is a difference in the policy documents with regard to this subject, at EAZA and ZAA it is the species coordinator who makes recommendation decisions and at AZA the PMC and species coordinator decide, after which each participant has the right to provide feedback. Due to the difference in decision-making authority, it can be concluded that there is a difference in policy content with regard to this subject.

### **Exact policy content**

EAZA: "On an annual basis the EEP Coordinator (and his/her Species Committee) should determine which breeding, non-breeding, transfer and potential other recommendations need to be made per individual (or group for group living species) in the population." (Population management manual, pp.55)

AZA: "In order to ensure the production of an effective Breeding and Transfer Plan, the SSP Coordinator must work with the PMC, a PMC Adjunct or an approved SPMAG Advisor to summarize the current demographic and genetic status of the population, describe the SSP management designation, and recommend breeding pairs and transfers." (Species Survival Plan Handbook, pp. 34)

ZAA: "The Species coordinator produces annual recommendations for the breeding and/or transfer of specimens held by participating institutions." (5. Species management, 5.4)

# 2. Acquisition decisions

## **Analysis**

EAZA states that member institutions will always have to cooperate with existing EEP programmes and all transfers must be arranged in consultation with and agreed by the EEP. Institutional Representatives of AZA member institutions should always ensure that all proposed acquisitions are included in the Breeding and Transfer Plan of a given species. When this plan is already published, any acquisition decision should be approved in advance by the SSP Coordinator or the SSP Management Group. The transaction of a ZAA ASMP Programme species should always be consistent with endorsed recommendations and must be under the facilitation of the Species Coordinator.

#### Conclusion

There is a difference in the policy with regard to this subject, at EAZA and ZAA it is the species coordinator who makes acquisition decisions and at AZA the PMC and species coordinator decide during the development the Breeding and Transfer Plan, during and after which each participant has the right to provide feedback. Due to the difference in the decision-making process, it can be concluded that there is a difference in policy content with regard to this subject.

# **Exact policy content**

EAZA:"Members will have to cooperate with existing EEP (and ESB) programmes as opposed to operating solely on institutional level." (Population management policy, pp. 73) and "For the benefit of the future viability of EAZA/EEP populations, all transfers of EEP animals must be arranged in full consultation with, and the agreement of, the EEP." (Population management policy, pp. 74) and "Participants will not transfer an EEP animal without prior approval of the EEP." (Population management policy, pp. 58) and "Transfers should not be arranged via brokers or dealers. Participants should directly contact each other, and if necessary the Species Coordinator can act as an intermediate." (Population management policy, pp. 58)

AZA: "IRs must ensure that all proposed acquisitions or dispositions of the SSP species are included in the SSP Master Plan (now Breeding and Transfer plan) or, if the Master Plan is already published, are approved in advance by the SSP Coordinator or, preferably the SSP Management Group." (SSP Handbook, pp. 46)

ZAA: "The transaction of any ASMP Program Species (to or from an organisation) must be consistent with endorsed recommendations and should be under the facilitation of the relevant Species Coordinator." (5. Species management, 4.3 Policy content, 9)

# 3. Acquisition from external parties

## **Analysis**

When an acquisition from an external party is considered, EAZA requires that care should be taken on the origin of the specimens and the breeding techniques used. AZA institutions may only acquire animals from legally operating sources that reflect and/or supports the spirit and intent of the AZA Code of Professional Ethics and the AZA Acquisition/Disposition Policy. Any convictions and previous dealings with other AZA institutions should be reviewed as well. ZAA requires a thorough assessment of the legal status of the operations, including a commitment to animal welfare standards.

#### Conclusion

There is a difference in the policy with regard to this subject, since each association highlights different requirements for the external parties. Due to the differences in these requirements, it can be concluded that there is a difference in policy content with regard to this subject.

## **Exact policy content**

EAZA: "Members will have to cooperate with existing EEP (and ESB) programmes as opposed to operating solely on institutional level." (Population management policy, pp. 73) and "For the benefit of the future viability of EAZA/EEP populations, all transfers of EEP animals must be arranged in full consultation with, and the agreement of, the EEP." (Population management policy, pp. 74) and "Participants will not transfer an EEP animal without prior approval of the EEP." (Population management policy, pp. 58) and "Transfers should not be arranged via brokers or dealers. Participants should directly contact each other, and if necessary the Species Coordinator can act as an intermediate." (Population management policy, pp. 58)

AZA: "IRs must ensure that all proposed acquisitions or dispositions of the SSP species are included in the SSP Master Plan (now Breeding and Transfer plan) or, if the Master Plan is already published, are approved in advance by the SSP Coordinator or, preferably the SSP Management Group." (SSP Handbook, pp. 46)

ZAA: "The transaction of any ASMP Program Species (to or from an organisation) must be consistent with endorsed recommendations and should be under the facilitation of the relevant Species Coordinator." (5. Species management, 4.3 Policy content, 9)

# 4. Disposition decision

## **Analysis**

EAZA states that member institutions will always have to cooperate with existing EEP programmes and all transfers must be arranged in consultation with and agreed by the EEP. Participants should directly contact each other and the EEP Coordinator can act as an intermediate, but no transfers will be executed without prior approval of the EEP and no arrangements should be made with brokers or dealers. Institutional Representatives of AZA member institutions should always ensure that all proposed dispositions are included in the Breeding and Transfer Plan of a given species. When this plan is already published, any dispositions decision should be approved in advance by the SSP Coordinator or the SSP Management Group. The transaction of a ZAA ASMP Programme species should always be consistent with endorsed recommendations and must be under the facilitation of the Species Coordinator.

### Conclusion

There is a difference in the policy with regard to this subject, at EAZA and ZAA it is the species coordinator who makes disposition decisions and at AZA the PMC and species coordinator decide during the development the Breeding and Transfer Plan, during and after which each participant has the right to provide feedback. Due to the difference in the decision-making process, it can be concluded that there is a difference in policy content with regard to this subject.

# **Exact policy content**

EAZA: "Members will have to cooperate with existing EEP (and ESB) programmes as opposed to operating solely on institutional level." (Population management policy, pp.73) and "For the benefit of the future viability of EAZA/EEP populations, all transfers of EEP animals must be arranged in full consultation with, and the agreement of, the EEP." (Population management policy, pp.73) and "Participants will not transfer an EEP animal without prior approval of the EEP." (Population management policy, pp.73) and "Transfers should not be arranged via brokers or dealers. Participants should directly contact each other, and if necessary the Species Coordinator can act as an intermediate." (Population management policy, pp.58)

AZA: "Institutions should consult WCMC-approved RCPs when making disposition decisions." (Acquisition/Disposition Policy, V.A.21)

ZAA: "The transaction of any ASMP Program Species (to or from an organisation) must be consistent with endorsed recommendations and should be under the facilitation of the relevant Species Coordinator." (5. Species management, 4.3 Policy content, 9)

# 5. Violation of recommendation

## **Analysis**

The consequences of violations for EAZA member institutions are initially an official warning by the EEP Committee or the Membership and Ethics Committee, following three warnings, a status of exclusion can be imposed on an EAZA member institution by the EAZA Executive Committee and ultimately termination of membership can be proposed to Council. Initially, AZA acts more on staff-level rather than on institutional level. Violation of recommendations will initially result in a formally registered complaint by the SSP Coordinator and ultimately to the recommendation of removal of the particular IR by the WCMC. When the problem is still not solved and the member institution does not follow the recommendations, this is considered as a violation of the AZA Code of Professional Ethics, all AZA members must work through the SSP Program and adhere to the AZA Full Participation Policy. In case of a violation, members may receive one of the following: a letter of reprimand from the Ethics Board, a letter of reprimand from the Ethics Board and the AZA Board of Directors, censorship and suspension of privileges, or expulsion from AZA membership for a minimum of two years. These decisions will be made by the AZA Ethics Board. No data about this subject has been found in the ZAA policies.

### Conclusion

Differences between EAZA and AZA were found in the procedures on the consequences of violations. Due to the lack of information from ZAA, it can be concluded that there is a difference in policy content with regard to this subject.

# **Exact policy content**

EAZA: "A warning can be given to an EAZA member institution by the EEP Committee or the Membership and Ethics Committee for one or more of the following reasons: 1. not following recommendations from EEP coordinators for animal transfer between officially approved EEP participants, also including non-EAZA EEP participants; (...) The 'Excluded' status can be imposed on an EAZA member institution by the Executive Committee for the following reasons: 1. following three warnings from the EEP and/or the Membership and Ethics Committee; (...) The Executive Committee can propose termination to Council in the following cases: 1. members with Excluded status who have not fully cooperated with EAZA committees, or have not abided by the EAZA Code of Practice, Code of Ethics or EEP procedures in the preceding two years;" (Population management policy, Annex 22)

AZA: "If the IL fails to properly oversee the completion of the SSP Program responsibilities of the IRs at his/her institution, the SSP coordinator will likely contact the TAG, WCMC and the AZA Conservation department to formally register a complaint. Failure to meet the obligations will likely result in the recommendation of removal of the IR by the WCMC" (Species Survival Plan Handbook, pp. 37)

ZAA: No data

# 6. Violations of acquisition policies

## **Analysis**

The consequences of violations for EAZA member institutions are initially an official warning by the EEP Committee or the Membership and Ethics Committee, following three warnings, a status of exclusion can be imposed on an EAZA member institution by the EAZA Executive Committee and ultimately termination of membership can be proposed to Council. Attempts by AZA members to circumvent AZA conservation programs in the acquisition of SSP animals are considered as a violation of the AZA Code of Professional Ethics; all AZA members must work through the SSP Program and adhere to the AZA Full Participation Policy. In case of a violation, members may receive one of the following: a letter of reprimand from the Ethics Board, a letter of reprimand from the Ethics Board and the AZA Board of Directors, censorship and suspension of privileges, or expulsion from AZA membership for a minimum of two years. These decisions will be made by the AZA Ethics Board. In case of a formal complaint that brings the accreditation status of a ZAA member in question, ZAA reserves the right to review all impending transactions with the particular member through the Association's Accreditation Breach Policy in consultation with the ASMP Committee.

### Conclusion

Differences between EAZA and AZA were found in the procedures on the consequences of violations. Due to the lack of information from ZAA, it can be concluded that there is a difference in policy content with regard to this subject.

## **Exact policy content**

EAZA: "A warning can be given to an EAZA member institution by the EEP Committee or the Membership and Ethics Committee for one or more of the following reasons: 2. transferring, importing or releasing an animal from the EEP population without the knowledge and approval of the EEP Coordinator; (...) The 'Excluded' status can be imposed on an EAZA member institution by the Executive Committee for the following reasons: 1. following three warnings from the EEP and/or the Membership and Ethics Committee; (...) The Executive Committee can propose termination to Council in the following cases: 1. members with Excluded status who have not fully cooperated with EAZA committees, or have not abided by the EAZA Code of Practice, Code of Ethics or EEP procedures in the preceding two years;" (Population management policy, Annex 22)

AZA: "Attempts by members to circumvent AZA conservation programs in the acquisition of SSP animals are detrimental to the Association and its conservation programs. Such action may be detrimental to the species involved and is a violation of the Association's Code of Professional Ethics. All AZA members must work through the SSP program in efforts to acquire SSP species and adhere to the AZA Full Participation policy." (Acquisition/Disposition Policy, VI.A.7) and "If the Ethics Board determines that a violation of the Code has occurred, the following options shall be considered: (A) Letter of Reprimand from the Ethics Board and the AZA Board of Directors. (C) Censorship and suspension of certain membership privileges (up to 2 years), to be determined on a case-by-case basis. (D) Expulsion from AZA membership for a minimum of two years. The Ethics Board may function as an investigative body as it determines whether or not a violation has occurred. The Ethics Board shall make its determination based upon the greater weight of the evidence presented to it. Ethics matters often do not involve legal matters but are founded on moral values and industry standards and practices. Where necessary or appropriate, the Ethics Board shall consult with AZA legal counsel." (Code of Professional Ethics)

ZAA: "If a formal complaint is received by the Association resulting in an investigation that brings the Accreditation status of a member into question, the Association reserves the right to review all impending transactions with this member through the Association's Accreditation Breach Policy in consultation with the ASMP Committee." (5. Species management, 4.3 Policy content, 17)

# 7. Violations of disposition policies

## **Analysis**

The consequences of violations for EAZA member institutions are initially an official warning by the EEP Committee or the Membership and Ethics Committee, following three warnings, a status of exclusion can be imposed on an EAZA member institution by the EAZA Executive Committee and ultimately termination of membership can be proposed to Council. Attempts by AZA members to circumvent AZA conservation programs in the disposition of SSP animals are considered as a violation of the AZA Code of Professional Ethics; all AZA members must work through the SSP Program and adhere to the AZA Full Participation Policy. In case of a violation, members may receive one of the following: a letter of reprimand from the Ethics Board, a letter of reprimand from the Ethics Board and the AZA Board of Directors, censorship and suspension of privileges, or expulsion from AZA membership for a minimum of two years. These decisions will be made by the AZA Ethics Board. In case of a formal complaint that brings the accreditation status of a ZAA member in question, ZAA reserves the right to review all impending transactions with the particular member through the Association's Accreditation Breach Policy in consultation with the ASMP Committee.

### Conclusion

Differences between EAZA and AZA were found in the procedures on the consequences of violations. Due to the lack of information from ZAA, it can be concluded that there is a difference in policy content with regard to this subject.

## **Exact policy content**

EAZA: "A warning can be given to an EAZA member institution by the EEP Committee or the Membership and Ethics Committee for one or more of the following reasons: 2. transferring, importing or releasing an animal from the EEP population without the knowledge and approval of the EEP Coordinator; (...) The 'Excluded' status can be imposed on an EAZA member institution by the Executive Committee for the following reasons: 1. following three warnings from the EEP and/or the Membership and Ethics Committee; (...) The Executive Committee can propose termination to Council in the following cases: 1. members with Excluded status who have not fully cooperated with EAZA committees, or have not abided by the EAZA Code of Practice, Code of Ethics or EEP procedures in the preceding two years;" (Population management policy, Annex 22)

AZA: "Attempts by members to circumvent AZA conservation programs in the disposition of SSP animals are detrimental to the Association and its conservation programs. Such action may be detrimental to the species involved and is a violation of the Association's Code of Professional Ethics. All AZA members must work through the SSP program in efforts to acquire SSP species and adhere to the AZA Full Participation policy." (Acquisition/Disposition Policy, V.A.6)

ZAA: "If a formal complaint is received by the Association resulting in an investigation that brings the Accreditation status of a member into question, the Association reserves the right to review all impending transactions with this member through the Association's Accreditation Breach Policy in consultation with the ASMP Committee." (5. Species management, 4.3 policy content, 17)

# 8. Acquisition responsibility

## **Analysis**

While no data could be found about acquisition responsibility in the EAZA document, AZA and ZAA both state that an institution's director or CEO is responsible for acquisitions.

### Conclusion

Due to the fact that no data could be found in the EAZA documents it is not clear if any major differences exist concerning this subject.

# **Exact policy content**

EAZA: No data

AZA: "The Director or Chief Executive Officer of the institution is charged with the final authority and responsibility for the monitoring and implementation of all acquisitions." (Acquisition/Disposition Policy, IV.A.2)

ZAA: "The Directors/CEOs of Association members shall ensure that any animal transactions at their institution satisfy the requirements of this Policy." (5. Species management, 4.3 Accountability)

# 9. Acquisition finances

## **Analysis**

In order to ensure the non-commercial status of EEPs, any selling of EAZA's EEP animals must be avoided, this applies to all animal transfers. No data about finances could be found in the AZA policy documents. ZAA member institutions may agree to share joint financial responsibility in the acquisition of specimens and shall not seek to make a profit from animal transaction costs to other member institutions, except for costs related to the implementation of the transaction.

## Conclusion

Due to the fact that no data could be found in the AZA documents it is not clear if any major differences exist concerning this subject.

# **Exact policy content**

EAZA: "In order to ensure the non-commercial status of EEPs any selling of EEP animals must be avoided. This also applies to animals that are declared surplus to the EEP as in accordance with subsection 2.13.5 Placement of surplus EEP animals." (Population management policy, pp.58) and "In order to ensure the non-commercial status of EEPs any selling of EEP animals must be avoided." (Population management policy, pp.74)

AZA: No data

ZAA: "Association member institutions may agree to share joint financial responsibility in the acquisition of specimens. For Program species, an agreement should be developed between all parties in advance of commencing the transaction and the Species Coordinator (where the Program is coordinated under ASMP) consulted to ensure that the contributing parties' expectations are aligned with the needs of the Program." (5. Species management, 4.3 Policy content, 6)

# 10. Acquisition from the wild

## **Analysis**

If acquisition from the wild is appropriate according to EAZA, this operation should satisfy relevant (inter)national legislation, have approval by the EEP and there should be confidence that such acquisitions are aimed at building up self-sustainable populations in the EAZA region, that they will not have deleterious effects upon the wild populations and that they are obtained from sustainable sources. When AZA institutions plan to obtain animals from the wild, they must first have examined sources like other AZA institutions and other regional associations. When acquiring from the wild, the long-term impacts on the wild populations should be evaluated and capture of free-ranging wild animal should be in accordance with all relevant laws and regulations. In crisis situations, rescue decisions are to be made on a case-by-case basis. No data could be found about acquisitions from the wild in the ZAA documents.

### Conclusion

Due to the fact that no data could be found in the ZAA documents and even though EAZA and AZA do not highlights the same aspects of acquisition from the wild, WAZA states in its Code of Ethics and Animal Welfare that "It is recognized that, from time to time, there is a legitimate need for conservation breeding programs, education programs or basic biological studies, to obtain animals from the wild. Members must be confident that such acquisitions will not have a deleterious effect upon the wild population." and "The taking of animals and other natural resources from the wild must be sustainable and in compliance with national and international law and conform with the appropriate IUCN policy." Therefore is concluded that no major differences exist concerning the process prior to the acquisition. However, no data could be found about who makes the decision to acquire specimens from the wild.

## **Exact policy content**

EAZA: "It is recognised that there is a legitimate need for conservation breeding programmes, education programmes or basic biological studies, to (incidentally) obtain animals from the wild. These acquisitions should be in accordance with relevant (inter-)national legislation and aimed at building up self-sustainable populations in the EAZA region. Members must be confident that such acquisitions will not have a deleterious effect upon the wild population and are obtained only from sustainable sources." (Population management policy, pp.73) and "Zoos and aquaria should strive to have self-sustaining animal populations. This is true for animal collections of EAZA members in general and for EAZA's breeding programmes in particular. This means that the importation of wild caught EEP species should be kept to an absolute minimum. As stated above transfers of animals from non-participants to participants also need approval by the EEP, who will grant permission only if such animals are considered valuable to the EEP population. This also applies to the importation of wild caught EEP species." (Population management policy, pp.62)

AZA: "The maintenance of wild animal populations for education and wildlife conservation purposes is a unique responsibility of AZA member zoos and aquariums. To accomplish these goals, it may be necessary to acquire wild-caught specimens. Before acquiring animals from the wild, institutions are encouraged to examine sources including other AZA institutions or regional zoological associations. When acquiring animals from the wild, careful consideration must be taken to evaluate the long-term impacts on the wild population. Any capture of free-ranging animals should be done in accordance with all local, state, federal, and international wildlife laws and regulations and not be detrimental to the long-term viability of the species or the wild or captive population(s). In crisis situations, when the survival of a population is at risk, rescue decisions are to be made on a case-by- case basis."

(Acquisition/Disposition Policy, VI.B)

ZAA: No data

# 11. Disposition responsibility

## **Analysis**

No data could be found concerning the responsibility for animal dispositions in the EAZA and ZAA documents. In case of a disposition from an AZA institution, the institution's director or CEO is responsible.

### Conclusion

Due to the fact that no data could be found in the EAZA and ZAA documents it is not clear if any major differences exist concerning this subject.

# **Exact policy content**

EAZA: No data

AZA: "The Director or Chief Executive Officer of the institution is charged with the final authority and responsibility for the monitoring and implementation of all dispositions." (Acquisition/Disposition Policy, V.A.2)

ZAA: No data

# 12. Disposition finances

## **Analysis**

In order to ensure the non-commercial status of EEPs, any selling of EAZA's EEP animals must be avoided, this includes surplus EEP animals. With regard to finances, no data could be found in the AZA documents. ZAA states that ZAA member institutions shall not seek to make a profit from animal transaction costs to other member institutions, except for costs related to the implementation of the transaction.

## **Conclusion**

Due to the fact that no data could be found in the AZA documents it is not clear if any major differences exist concerning this subject.

# **Exact policy content**

EAZA: "In order to ensure the non-commercial status of EEPs any selling of EEP animals must be avoided. This also applies to animals that are declared surplus to the EEP as in accordance with subsection 2.13.5 Placement of surplus EEP animals." (Population management policy, pp.58) and "In order to ensure the non-commercial status of EEPs any selling of EEP animals must be avoided." (Population management policy, pp.74)

AZA: No data

ZAA: "Association member institutions shall not seek to make a profit from animal transaction costs to other member institutions. Any payment received in relation to the transaction should directly relate to the cost of implementing the transaction." (5. Species management, 4.3 policy content, 7)

# 13. Disposition to external parties

## **Analysis**

In general, EAZA members should ensure that receiving parties have appropriate facilities, skilled staff and the same high standard of husbandry and welfare as required by EAZA members. With regard to external parties, EAZA makes a distinction between 'Transfers between participants and non-participants' and 'Transfers between regions'. For the former, no EEP animal may be transferred without prior approval of the Species Coordinator. The particular external party may get approval to obtain a surplus animal, but if the animal is not surplus to the population, the external party can obtain the animal only if the party is approved as non-EAZA EEP participant for that species. In case of a transfer of an animal between regions, the Species Coordinator will contact the Species Coordinator in the region of the non-participating institution to ensure that the transfer will not interfere with the management plan in that region. For these transactions is referred to EAZA's Guidelines for Animal Transfers between Regions. Sending AZA institutions must be sure that the receiving parties will give proper care to the animals, have appropriate records keeping practices, financial stability, facilities and resources required for giving proper care to the animal and its offspring, and that their stated or implied mission is not in conflict with AZA's mission. AZA recommends that the documentation will be permanently kept at the animal's AZA member institution. External parties that receive a ZAA programme animal must either have an animal welfare policy, or be able to demonstrate the ability to cater for the welfare of the animal. Programme species may only be transferred to an external party if the transactions are part of a formal arrangement or under the agreed framework of a wildlife agency recovery program.

#### Conclusion

No major differences were found, except the obligation that EAZA Species Coordinators need to approve receiving institutions that are not members of EAZA, or receiving institutions that are located outside of the EAZA region and member of another regional association. Due to the fact that no data could be found in the AZA and ZAA documents it is not clear if any major differences exist concerning this subject.

## **Exact policy content**

EAZA: Transfers between participants and non-participants: "Participants will not transfer an EEP animal to a non-participant without prior approval of the Species Coordinator. Approval will be given if the animal concerned is surplus to the EEP population (See also Chapter). If the animal is not surplus to the population it can only be transferred to the non-participant if the latter is approved as non-EAZA EEP participant for that species (see also 2.6 Non-EAZA Members and EEP Participation)." (Population management policy, pp.59) and "Transfers of animals from non-participants to participants also need approval by the EEP, who will grant permission only if such animals are considered valuable to the EEP population." (Population management policy, pp.59) Animal Transfers between Regions: "In cases of transfers between an EEP participant and a non-participant outside of the EEP region, the Species Coordinator will contact the Species Coordinator in the region of the non- EEP-participant if there is a formal breeding programme for the species in that region. The coordinator will then make sure that the suggested transfer will not interfere with the management plan in that region. Detailed guidelines including steps to consider under various scenarios are available in Annex 17: EAZA Guidelines for Animal Transfers between Regions." (Population management policy, pp.62)

General: "Members should ensure that institutions receiving animals have appropriate facilities to hold the animals and skilled staff who are capable of maintaining the same high standard of husbandry and welfare as required of EAZA members." (Population management policy, pp.73)

AZA: "When an animal is sent to a non-member of AZA, it is imperative that the member be confident that the animal will be cared for properly. (Acquisition/Disposition Policy, V.A.) and "In dispositions to non-AZA members, the non-AZA member's mission (stated or implied) must not be in conflict with the mission of AZA, or with this A/D Policy." (Acquisition/Disposition Policy, V.A.12) and "In dispositions to non-AZA member facilities that are open to the public, the non-AZA member must balance public display, recreation, and entertainment with demonstrated efforts in conservation, education, and science." (Acquisition/Disposition Policy, V.A.13) and "In dispositions to non-AZA members, the AZA members must be convinced that the recipient has the expertise, records management practices, financial stability, facilities, and resources required to properly care for and maintain the animals and their offspring. It is recommended that this documentation be kept in the permanent record of the animals at the AZA member institution." (Acquisition/Disposition Policy, V.A.14)

ZAA: "Where the animal(s) is to be transferred to an external party which does not have a specific animal welfare policy, a commitment must be provided that the receiver can demonstrate an ability to cater for the welfare of the animal(s)." (5. Species management, 4.3 Policy content, 1) and "No program specimens are to be transacted out to external parties (except those transactions which are part of a formal (or add aquarium) arrangement or under the agreed framework of a wildlife agency recovery program)." (5. Species management, 4.3 Policy content, 9)

# 14. Reintroduction

## **Analysis**

The decision to make EAZA's EEP specimens available for reintroduction is made by the EEP and not the individual institutions. These releases to the wild must be done according to all preconditions set out in the IUCN/SSC Guidelines for Reintroduction (Gland, Switzerland, 1995), and all EAZA members are obliged to comply with these guidelines. No data could be found for AZA about the specific decision making process of who decides to release certain animals. AZA has however a Scientific Advisory Group specialized in reintroductions. Its mission is to develop cooperative relationships between AZA, its Animal Programs, the AZA members, and the scientific community of reintroduction specialists and to provide technical advice. ZAA states that the reintroduction or restocking of an ASMP Program Species should be under the facilitation of the relevant recovery group within each jurisdiction and must be consistent with endorsed recommendations. An application for the release of an ASMP species must be made to the ASMP Committee and must be approved by local, state, federal and if necessary international governments, when no recovery group exists.

### Conclusion

Even though not every association highlights the same aspects of reintroduction, WAZA states in its Code of Ethics and Animal Welfare that "All release-to-the wild programmes must be conducted in accordance with the IUCN/SSC/Reintroduction Specialist Group guidelines for reintroduction." Therefore is concluded that no differences exist concerning this part of the subject. Nevertheless, the decision making is not clear, as the final decision for reintroduction lies with the Species Coordinators of EAZA and ZAA, but no data was found for AZA. So due to the fact that no data could be found in the AZA documents it is not clear if any major differences exist concerning this subject.

## **Exact policy content**

EAZA: "EAZA Zoos and Aquaria need to ensure that no animals are released to the wild whenever this is done without all preconditions set out in the IUCN/SSC Guidelines for Reintroduction (Gland, Switzerland, 1995). Such releases mean a violation of the IUCN Guidelines, with which all EAZA members are obliged to comply. The decision to make EEP specimens available for reintroduction or restocking projects is made by the EEP and not the institution." (Population management manual, pp. 76)

AZA: "The mission of the Reintroduction Scientific Advisory Group (SAG) is to develop cooperative relationships between AZA, its Animal Programs, its accredited institutions, and the scientific community of reintroduction specialists and provide technical advice to enhance reintroduction procedures for AZA Animal Programs. The Reintroduction SAG advises the AZA Wildlife Conservation and Management Committee (WCMC), Conservation Department, and Animal Program Leaders on issues related to species reintroduction. It is overseen by the Field Conservation Committee." (http://www.aza.org/reintroduction-scientific-advisory-group/)

ZAA: "The reintroduction or restocking utilising any ASMP Program Species should be under the facilitation of the relevant recovery group within each jurisdiction and must be consistent with endorsed recommendations. In the absence of a formal recovery group an application to be involved in the release of an ASMP Program Species must be made to the ASMP Committee, as well as local, state, federal and, where necessary, international government approvals." (4.0 Collection management, 4.4)

# 15. Ownership agreements

## **Analysis**

When the holder and the owner are the same EAZA institution, the right to make decisions and the responsibility for care, health and welfare lies with that institution. In some cases however, when loan agreements are involved, the owner and holding institution can be two separate institutions. In such cases the right to make decisions stays with the owner and the responsibility is transferred to the holding institution. When an animal on loan produces offspring, the ownership lies with the holding institution, unless otherwise described in the loan agreement. The ownership of the offspring should be clearly articulated in all loan agreements, including decisions about the disposal of the offspring. If a transfer is recommended by the Species coordinator to transfer a specimen to a Temporary Member, it is suggested to do this on loan basis only. The Species Coordinator will only communicate with the holding institution of a specimen. When the holder has no rights to decide about an animal, the holding institution should contact the legal owner of the specimen. For AZA institutions it is obligated to monitor at least annually the conditions of any loaned specimens and the ability of the holding institution to provide proper care. In case of violations, the owner has the obligation to recall the animal. The loaning policies of AZA institutions must not be in conflict with AZA's Acquisition/Disposition Policy. Full members of ZAA must implement transactions of breeding programme species (including any offspring produced) to other full members under an open exchange basis. To Associate Members these transactions may only be implemented under loan agreement. The responsibility for any loaned animals stays with the sending institution until the loan is ended or a full transaction has taken place.

#### Conclusion

A difference was found in the fact that EAZA and ZAA prescribe in which cases institutions should use loan agreements and where responsibility for the animals (and produced offspring) lies in such cases. AZA does not prescribe agreement contents, but obliges its members to monitor the conditions of loaned animals. Due to the lack of data concerning this subject, it is not possible to know if this is a difference in the policy contents.

## **Exact policy content**

EAZA: "In order to ensure a proper management of the animals in EAZA institutions it is essential to address the issue of ownership and responsibility. With ownership follows the right to make decisions about the animal in question whereas the responsibility for care, health and welfare lies with the holder. Often owner and holding institution will be the same, and in such cases the right to make decisions and the responsibility for the animals go hand in hand. But in cases of animals on loan the owner and the holder are two separate institutions. In such cases the right to make decisions still stays with the owner (unless otherwise decided in the loan contract) whereas the responsibility for the animal (care, health, welfare) is transferred to the holder that has the animal on loan. Animals born from animals owned by the institution where the animal is born obviously belong to the owner. But in cases where animals are born by animals on loan to another institution the ownership lies with the holding institution unless otherwise described in the loan agreement. In order to avoid confusion it is thus essential that a loan agreement is signed by both parties in all cases of animals transferred on loan, and that ownership of any offspring is specifically addressed in this agreement. With regards to EEP and ESB species it must be ensured that the ownership issue does not become an obstacle or a delaying factor for the recommended transfers and other associated activities. Since neither EEPs nor ESBs are legal entities they can not own any animals. It is therefore not enough for a loan agreement to state that any offspring must be disposed of in accordance with the EEP. Such a paragraph only addresses the decision making process, not the ownership, so ownership of offspring must be clearly articulated in all loan agreements. The loan agreement should also specifically address decisions relating to the disposal of the offspring.

Furthermore with regard to EEP and ESB species it must be taken into consideration that communication is between the holder and the species coordinator/studbook keeper. Species coordinators and studbook keepers only refer recommendations to the holders, and in case the holder is not authorised to make the necessary decisions about transfers etc. it is up to the holder to clear the recommended transfers etc. with the actual owner." (Population management policy, pp.76-77) and "If it is recommended by the EEP Coordinator to transfer animals to a Temporary Member it is strongly suggested to do this on a 'on loan' basis only." (Population management manual, pp. 37)

AZA: "It is the obligation of every loaning institution to monitor, at least annually, the conditions of any loaned specimens and the ability of the recipient to provide proper care. If the conditions and care of animals are in violation of the loan agreement, it is the obligation of the loaning institution to recall the animal. Furthermore, an institution's loaning policy must not be in conflict with this A/D Policy." (Acquisition/Disposition Policy, V.A.10)

ZAA: "Full Member institutions agree to implement transactions of ASMP Program Species to other Full Members under an open exchange basis, and only loaned (including any offspring produced) to Associate Member institutions. Any loan animal(s) is the responsibility of the sending institution until such time that the loan is ended or a full transaction has taken place." (5. Species management, 4.3 policy content, 10)

# 16. Transport coordination and responsibility

## **Analysis**

EAZA animal transports should be coordinated by appropriate staff and all parties involved in the transport are responsible for the relevant exchange of information prior to, during and after transport. The sending institution is responsible for the means of transport for the specimens. For AZA institutions is emphasized that planning and coordination of transports requires good communication among all affected parties and that an adequate number of appropriate trained personnel (by institution of contractor) should be assigned. For transports of ZAA animals, the ZAA members must develop travel plans for transport shipment and furthermore, all arrangements, costs, methods of containment, departure and arrival details must be agreed to, documented and confirmed between the sending and the receiving institution. It is the members' responsibility to minimize any risks to the health and well-being of the specimens during the transport process.

### Conclusion

All associations emphasize that the coordination of transports should be done by appropriate institutional staff and regarding the coordination part of this subject no major differences were found. EAZA is the only association that assigns the responsibility for the means of transport to the sending institution, so due to the lack of data concerning responsibility in the policy documents of AZA and ZAA it is not possible to know if this is a difference in the policy contents.

## **Exact policy content**

EAZA: "Appropriate staff should be involved in preparing and (when relevant) accompanying the transport. All necessary permits (e.g. CITES) and other official paperwork need to be arranged prior to departure and copies need to be in possession of the transporter. The transporter must comply with any national legislation on licensing, speed limits, rest times, etc." (EAZA Guideline on Animal Transport, 5) and "EAZA members must ensure animals are fit before being transported and should ensure that the means of transport (crates, tanks, boxes, vehicles, etc.) are appropriate and guarantee the welfare of the animals and the safety of staff from loading until releasing at final destination. Where appropriate, animals should be accompanied by qualified staff. EAZA members should assess the need to exchange staff prior to and/or after the transport to reduce potential stress. All parties involved in the transport are responsible for the relevant exchange of information prior to, during and after transport." (Population management manual, pp. 76) and "The zoo sending the animal is responsible for choosing the right means for transport from "A to B". In case a third party is involved in the transport the sending zoo is responsible for the professional transportation of the animal. The sending zoo should also be informed about the route and the time table of the transport." (EAZA guideline on animal transport)

AZA: Safe transport also requires the assignment of an adequate number of appropriately trained personnel (by institution or contractor) who are equipped and prepared to handle contingencies and/or emergencies that may occur in the course of transport. Planning and coordination for animal transport requires good communication among all affected parties, plans for a variety of emergencies and contingencies that may arise, and timely execution of the transport. At no time should the animal(s) or people be subjected to unnecessary risk or danger (Animal Care Manual Template, 3.1 transport preparations)

ZAA: "When transporting animals, Association members must: (...) Develop Travel Plans for transport shipment (....). All transport arrangements, including costs, methods of containment, transport, departure and arrival details, must be agreed to, documented and confirmed between the sending and receiving institution prior to travel commencing." (4. Collection management, 4.3.1) and "Association members commit to undertake all transport of live animals in a manner that minimises any risks to the health and well-being of the specimen(s)." (4. Collection management, 4.3.1)

# 17. Transport finances

## Analysis

While no data about this subject could be found for EAZA and AZA, ZAA states that "it is standard practice for the receiving institution to pay all reasonable costs for transport (including the costs of crates if they are not returned to the sender at the receiver's expense)."

## **Conclusion**

ZAA is the only association that refers to this subject, so due to the lack of data concerning financial responsibility in the policy documents of EAZA and AZA it is not possible to know if this is a difference in the policy contents.

# **Exact policy content**

EAZA: No data

AZA: No data

ZAA: "It is standard practice for the receiving institution to pay all reasonable costs for transport (including the costs of crates if they are not returned to the sender at the receiver's expense)." (4. Collection management, 4.3)

# Appendix II 'Exact policy content of the key elements'

#### **Recommendation decision**

EAZA: "On an annual basis the EEP Coordinator (and his/her Species Committee) should determine which breeding, non-breeding, transfer and potential other recommendations need to be made per individual (or group for group living species) in the population." (Population management manual, pp.55)

AZA: "In order to ensure the production of an effective Breeding and Transfer Plan, the SSP Coordinator must work with the PMC, a PMC Adjunct or an approved SPMAG Advisor to summarize the current demographic and genetic status of the population, describe the SSP management designation, and recommend breeding pairs and transfers." (Species Survival Plan Handbook, pp. 34)

ZAA: "The Species coordinator produces annual recommendations for the breeding and/or transfer of specimens held by participating institutions." (5. Species management, 5.4)

## Participant endorsement of recommendations

EAZA: "After Species Committee approval their implementation should attempted to be completed in the following year (unless otherwise indicated in the recommendations). [Note that it may be necessary to work on a shorter than annual basis in short-lived, rapidly reproducing species.]" (Population management policy, pp.56)

AZA: "The IR is expected to communicate any recommendations affecting their institution's population to their IL and Director, and is required to provide feedback and adress questions or concerns about these recommendations to the SSP Coordinator during the comment period. Lack of feedback from an IR will be interpreted as the institution's full acceptance and agreement to the recommendations presented in the Draft Breeding and Transfer Plan." (Species Survival Plan Handbook, pp. 37)

ZAA: "All Annual Reports & Recommendations are endorsed by the nominated Representatives of the participating institutions and their endorsement is taken as the commitment of the institution to honour the AR&R and to deliver on its recommendations" (5. Species management, 5.4)

### **Violation of recommendation**

EAZA: "A warning can be given to an EAZA member institution by the EEP Committee or the Membership and Ethics Committee for one or more of the following reasons: 1. not following recommendations from EEP coordinators for animal transfer between officially approved EEP participants, also including non-EAZA EEP participants; (...) The 'Excluded' status can be imposed on an EAZA member institution by the Executive Committee for the following reasons: 1. following three warnings from the EEP and/or the Membership and Ethics Committee; (...) The Executive Committee can propose termination to Council in the following cases: 1. members with Excluded status who have not fully cooperated with EAZA committees, or have not abided by the EAZA Code of Practice, Code of Ethics or EEP procedures in the preceding two years;" (Population management policy, Annex 22)

AZA: "If the IL fails to properly oversee the completion of the SSP Program responsibilities of the IRs at his/her institution, the SSP coordinator will likely contact the TAG, WCMC and the AZA Conservation department to formally register a complaint. Failure to meet the obligations will likely result in the recommendation of removal of the IR by the WCMC" (Species Survival Plan Handbook, pp. 37)

ZAA: No data

### **Acquisition decisions**

EAZA: "Members will have to cooperate with existing EEP (and ESB) programmes as opposed to operating solely on institutional level." (Population management policy, pp. 73) and "For the benefit of the future viability of EAZA/EEP populations, all transfers of EEP animals must be arranged in full consultation with, and the agreement of, the EEP." (Population management policy, pp. 74) and "Participants will not transfer an EEP animal without prior approval of the EEP." (Population management policy, pp. 58) and "Transfers should not be arranged via brokers or dealers. Participants should directly contact each other, and if necessary the Species Coordinator can act as an intermediate." (Population management policy, pp. 58)

AZA: "IRs must ensure that all proposed acquisitions or dispositions of the SSP species are included in the SSP Master Plan (now Breeding and Transfer plan) or, if the Master Plan is already published, are approved in advance by the SSP Coordinator or, preferably the SSP Management Group." (SSP Handbook, pp. 46)

ZAA: "The transaction of any ASMP Program Species (to or from an organisation) must be consistent with endorsed recommendations and should be under the facilitation of the relevant Species Coordinator." (5. Species management, 4.3 Policy content, 9)

## **Acquisition responsibility**

EAZA: No data

AZA: "The Director or Chief Executive Officer of the institution is charged with the final authority and responsibility for the monitoring and implementation of all acquisitions." (Acquisition/Disposition Policy, IV.A.2)

ZAA: "The Directors/CEOs of Association members shall ensure that any animal transactions at their institution satisfy the requirements of this Policy." (5. Species management, 4.3 Accountability)

# Law and regulation regarding acquisition

EAZA: No data

AZA: "Acquisitions must meet the requirements of all applicable local, state, federal and international regulations and laws." (Acquisition/Disposition Policy, IV.A.1)

ZAA: "All animal transactions must satisfy relevant legislative requirements as appropriate including: - requirements of the Environment Protection and Biodiversity Conservation Act (Australia) or the Environment Act (New Zealand); - requirements of the Australian Quarantine Inspection Service (AQIS) and the MAF Biosecurity New Zealand Clearance Services (MAFBNZ Clearance Services); - Australian state and territory legislation and NZ DOC conservancy regulations pertaining to transfer and holding of wildlife and exotic species; and, -legislation that provides for animal welfare." (5. Species management, 4.3 Compliance)

### Specials for Quarantine:

"Association members are required to ensure suitable, species appropriate quarantine procedures are carried out before an animal is transferred and introduced to con-specifics. Quarantine procedures should be supervised by a qualified veterinarian. Health screening should be standard operating procedure during animal transactions to minimise risks of disease transmission between con-specifics, humans, livestock and wildlife." (5. Species management, 4.3 Policy content, 14) and "Specimens acquired via confiscation by government authorities should be considered a significant quarantine risk especially where paternity or health history cannot be confirmed. Taxon specific quarantine procedures established by governments and/or the Association's Veterinary Specialist Group must be adhered to or where these do not exist advice must be sought from the Veterinary Specialist Group." (5. Species management, 4.3 Policy content, 15)

### **Institution requirements for acquisition**

EAZA: "Members should ensure that institutions receiving animals have appropriate facilities to hold the animals and skilled staff who are capable of maintaining the same high standard of husbandry and welfare as required of EAZA members." (Population management policy, pp. 73)

AZA: "The institution must have the necessary resources to support and provide for the professional care and management of a species, so that the physical and social needs of both specimen and species are met." (Acquisition/Disposition Policy, IV.A.6)

ZAA: "All animal transactions involving Association members must provide for the long-term welfare of the animal(s) involved." (5. Species management, 4.3 Policy content, 1)

## **Acquisition finances**

EAZA: "In order to ensure the non-commercial status of EEPs any selling of EEP animals must be avoided. This also applies to animals that are declared surplus to the EEP as in accordance with subsection 2.13.5 Placement of surplus EEP animals." (Population management policy, pp.58) and "In order to ensure the non-commercial status of EEPs any selling of EEP animals must be avoided." (Population management policy, pp.74)

### AZA: No data

ZAA: "Association member institutions may agree to share joint financial responsibility in the acquisition of specimens. For Program species, an agreement should be developed between all parties in advance of commencing the transaction and the Species Coordinator (where the Program is coordinated under ASMP) consulted to ensure that the contributing parties' expectations are aligned with the needs of the Program." (5. Species management, 4.3 Policy content, 6) "Association member institutions shall not seek to make a profit from animal transaction costs to other member institutions." (5. Species management, 4.3 policy content, 7)

## **Acquisition from external parties**

EAZA: "Where captive bred animals are acquired from private or commercial breeders, care should be taken on the origin of these animals and the breeding techniques used. In some cases, e.g. aquaculture of some freshwater species outside the country of origin, negative environmental effects may mean that sustainably-caught wild fish are more ethically and environmentally appropriate." (Population management policy, pp.73)

AZA: "Animals are only to be acquired from sources that are known to operate legally and conduct their business in a manner that reflects and/or supports the spirit and intent of the AZA Code of Professional Ethics as well as this policy. Any convictions of state, federal, or international wildlife laws should be reviewed, as well as any previous dealings with other AZA accredited institutions." (Acquisition/Disposition Policy, IV.A.8)

ZAA: "It is acknowledged that in some instances animal transactions may involve the purchase or sale of specimens to parties involved in farming or commercial production. It is the responsibility of Association members to ensure that such transactions involve a thorough assessment of the legal status of such operations and that a commitment to animal welfare standards is apparent and practised on a daily operational basis." (5. Species management, 4.3 Policy content, 4)

### Acquisition from the wild

EAZA: "It is recognised that there is a legitimate need for conservation breeding programmes, education programmes or basic biological studies, to (incidentally) obtain animals from the wild. These acquisitions should be in accordance with relevant (inter-)national legislation and aimed at building up self-sustainable populations in the EAZA region. Members must be confident that such acquisitions will not have a deleterious effect upon the wild population and are obtained only from sustainable sources." (Population management policy, pp.73) and "Zoos and aquaria should strive to have self-sustaining animal populations. This is true for animal collections of EAZA members in general and for EAZA's breeding programmes in particular. This means that the importation of wild caught EEP species should be kept to an absolute minimum. As stated above transfers of animals from non-participants to participants also need approval by the EEP, who will grant permission only if such animals are considered valuable to the EEP population. This also applies to the importation of wild caught EEP species." (Population management policy, pp.62)

AZA: "The maintenance of wild animal populations for education and wildlife conservation purposes is a unique responsibility of AZA member zoos and aquariums. To accomplish these goals, it may be necessary to acquire wild-caught specimens. Before acquiring animals from the wild, institutions are encouraged to examine sources including other AZA institutions or regional zoological associations. When acquiring animals from the wild, careful consideration must be taken to evaluate the long-term impacts on the wild population. Any capture of free-ranging animals should be done in accordance with all local, state, federal, and international wildlife laws and regulations and not be detrimental to the long-term viability of the species or the wild or captive population(s). In crisis situations, when the survival of a population is at risk, rescue decisions are to be made on a case-by-case basis." (Acquisition/Disposition Policy, VI.B)

ZAA: No data

## Violations of acquisition policies

EAZA: "A warning can be given to an EAZA member institution by the EEP Committee or the Membership and Ethics Committee for one or more of the following reasons: 2. transferring, importing or releasing an animal from the EEP population without the knowledge and approval of the EEP Coordinator; (...) The 'Excluded' status can be imposed on an EAZA member institution by the Executive Committee for the following reasons: 1. following three warnings from the EEP and/or the Membership and Ethics Committee; (...) The Executive Committee can propose termination to Council in the following cases: 1. members with Excluded status who have not fully cooperated with EAZA committees, or have not abided by the EAZA Code of Practice, Code of Ethics or EEP procedures in the preceding two years;" (Population management policy, Annex 22)

AZA: "Attempts by members to circumvent AZA conservation programs in the acquisition of SSP animals are detrimental to the Association and its conservation programs. Such action may be detrimental to the species involved and is a violation of the Association's Code of Professional Ethics. All AZA members must work through the SSP program in efforts to acquire SSP species and adhere to the AZA Full Participation policy." (Acquisition/Disposition Policy, VI.A.7) and "If the Ethics Board determines that a violation of the Code has occurred, the following options shall be considered: (A) Letter of Reprimand from the Ethics Board. (B) Letter of Reprimand from the Ethics Board and the AZA Board of Directors. (C) Censorship and suspension of certain membership privileges (up to 2 years), to be determined on a case-by-case basis. (D) Expulsion from AZA membership for a minimum of two years. The Ethics Board may function as an investigative body as it determines whether or not a violation has occurred. The Ethics Board shall make its determination based upon the greater weight of the evidence presented to it. Ethics matters often do not involve legal matters but are founded on moral values and industry standards and practices. Where necessary or appropriate, the Ethics Board shall consult with AZA legal counsel." (Code of Professional Ethics) ZAA: "If a formal complaint is received by the Association resulting in an investigation that brings the Accreditation status of a member into question, the Association reserves the right to review all impending transactions with this member through the Association's Accreditation Breach Policy in consultation with the ASMP Committee." (5. Species management, 4.3 Policy content, 17)

### **Disposition decision**

EAZA: "Members will have to cooperate with existing EEP (and ESB) programmes as opposed to operating solely on institutional level." (Population management policy, pp.73) and "For the benefit of the future viability of EAZA/EEP populations, all transfers of EEP animals must be arranged in full consultation with, and the agreement of, the EEP." (Population management policy, pp.73) and "Participants will not transfer an EEP animal without prior approval of the EEP." (Population management policy, pp.73) and "Transfers should not be arranged via brokers or dealers. Participants should directly contact each other, and if necessary the Species Coordinator can act as an intermediate." (Population management policy, pp.58)

AZA: "Institutions should consult WCMC-approved RCPs when making disposition decisions." (Acquisition/Disposition Policy, V.A.21) and "IRs must ensure that all proposed acquisitions or dispositions of the SSP species are included in the SSP Master Plan (now Breeding and Transfer plan) or, if the Master Plan is already published, are approved in advance by the SSP Coordinator or, preferably the SSP Management Group." (SSP Handbook, pp. 46)

ZAA: "The transaction of any ASMP Program Species (to or from an organisation) must be consistent with endorsed recommendations and should be under the facilitation of the relevant Species Coordinator." (5. Species management, 4.3 Policy content, 9)

## **Disposition responsibility**

EAZA: No data

AZA: "The Director or Chief Executive Officer of the institution is charged with the final authority and responsibility for the monitoring and implementation of all dispositions." (Acquisition/Disposition Policy, V.A.2)

ZAA: No data

## Laws and regulation regarding dispositions

EAZA: No data

AZA: "Dispositions must meet the requirements of all applicable local, state, federal and international regulations and laws." (Acquisition/Disposition Policy, V.A.1)

ZAA: "It is the responsibility of the Association membership to ensure that the request for any CITES listed species (or part thereof) will not result in any breach of CITES. Any live specimen of a CITES listed species not part of a CCP, or a dead specimen (or part thereof) of any CITES listed species must be, where practical, permanently identified and a register of where it was sent maintained." (5. Species management, 4.3 policy content, 12)

## **Dispositional finances**

EAZA: "In order to ensure the non-commercial status of EEPs any selling of EEP animals must be avoided. This also applies to animals that are declared surplus to the EEP as in accordance with subsection 2.13.5 Placement of surplus EEP animals." (Population management policy, pp.58) and "In order to ensure the non-commercial status of EEPs any selling of EEP animals must be avoided." (Population management policy, pp.74)

AZA: No data

ZAA: "Association member institutions shall not seek to make a profit from animal transaction costs to other member institutions." (5. Species management, 4.3 policy content, 7)

### **Disposition to external parties**

EAZA: Transfers between participants and non-participants: "Participants will not transfer an EEP animal to a non-participant without prior approval of the Species Coordinator. Approval will be given if the animal concerned is surplus to the EEP population (See also Chapter). If the animal is not surplus to the population it can only be transferred to the non-participant if the latter is approved as non-EAZA EEP participant for that species (see also 2.6 Non-EAZA Members and EEP Participation)." (Population management policy, pp.59) and "Transfers of animals from non-participants to participants also need approval by the EEP, who will grant permission only if such animals are considered valuable to the EEP population." (Population management policy, pp.59) Animal Transfers between Regions: "In cases of transfers between an EEP participant and a non-participant outside of the EEP region, the Species Coordinator will contact the Species Coordinator in the region of the non- EEP-participant if there is a formal breeding programme for the species in that region. The coordinator will then make sure that the suggested transfer will not interfere with the management plan in that region. Detailed guidelines including steps to consider under various scenarios are available in Annex 17: EAZA Guidelines for Animal Transfers between Regions." (Population management policy, pp.62)

General: "Members should ensure that institutions receiving animals have appropriate facilities to hold the animals and skilled staff who are capable of maintaining the same high standard of husbandry and welfare as required of EAZA members." (Population management policy, pp.73)

AZA: "When an animal is sent to a non-member of AZA, it is imperative that the member be confident that the animal will be cared for properly. (Acquisition/Disposition Policy, V.A.) and "In dispositions to non-AZA members, the non-AZA member's mission (stated or implied) must not be in conflict with the mission of AZA, or with this A/D Policy." (Acquisition/Disposition Policy, V.A.12) and "In dispositions to non-AZA member facilities that are open to the public, the non-AZA member must balance public display, recreation, and entertainment with demonstrated efforts in conservation, education, and science." (Acquisition/Disposition Policy, V.A.13) and "In dispositions to non-AZA members, the AZA members must be convinced that the recipient has the expertise, records management practices, financial stability, facilities, and resources required to properly care for and maintain the animals and their offspring. It is recommended that this documentation be kept in the permanent record of the animals at the AZA member institution." (Acquisition/Disposition Policy, V.A.14)

ZAA: "Where the animal(s) is to be transferred to an external party which does not have a specific animal welfare policy, a commitment must be provided that the receiver can demonstrate an ability to cater for the welfare of the animal(s)." (5. Species management, 4.3 Policy content, 1) and "No program specimens are to be transacted out to external parties (except those transactions which are part of a formal (or add aquarium) arrangement or under the agreed framework of a wildlife agency recovery program)." (5. Species management, 4.3 Policy content, 9)

## Reintroduction

EAZA: "EAZA Zoos and Aquaria need to ensure that no animals are released to the wild whenever this is done without all preconditions set out in the IUCN/SSC Guidelines for Reintroduction (Gland, Switzerland, 1995). Such releases mean a violation of the IUCN Guidelines, with which all EAZA members are obliged to comply. The decision to make EEP specimens available for reintroduction or restocking projects is made by the EEP and not the institution." (Population management manual, pp. 76)

AZA: "The mission of the Reintroduction Scientific Advisory Group (SAG) is to develop cooperative relationships between AZA, its Animal Programs, its accredited institutions, and the scientific community of reintroduction specialists and provide technical advice to enhance reintroduction procedures for AZA Animal Programs. The Reintroduction SAG advises the AZA Wildlife Conservation and Management Committee (WCMC), Conservation Department, and Animal Program Leaders on issues related to species reintroduction. It is overseen by the Field Conservation Committee" AZA, 2009 http://www.aza.org/reintroduction-scientific-advisory-group/)

ZAA: "The reintroduction or restocking utilising any ASMP Program Species should be under the facilitation of the relevant recovery group within each jurisdiction and must be consistent with endorsed recommendations. In the absence of a formal recovery group an application to be involved in the release of an ASMP Program Species must be made to the ASMP Committee, as well as local, state, federal and, where necessary, international government approvals." (4.0 Collection management, 4.4)

## Violation of disposition policies

EAZA: "A warning can be given to an EAZA member institution by the EEP Committee or the Membership and Ethics Committee for one or more of the following reasons: 2. transferring, importing or releasing an animal from the EEP population without the knowledge and approval of the EEP Coordinator; (...) The 'Excluded' status can be imposed on an EAZA member institution by the Executive Committee for the following reasons: 1. following three warnings from the EEP and/or the Membership and Ethics Committee; (...) The Executive Committee can propose termination to Council in the following cases: 1. members with Excluded status who have not fully cooperated with EAZA committees, or have not abided by the EAZA Code of Practice, Code of Ethics or EEP procedures in the preceding two years;" (Population management policy, Annex 22)

AZA: "Attempts by members to circumvent AZA conservation programs in the disposition of SSP animals are detrimental to the Association and its conservation programs. Such action may be detrimental to the species involved and is a violation of the Association's Code of Professional Ethics. All AZA members must work through the SSP program in efforts to deacquisition SSP species and adhere to the AZA Full Participation policy." (Acquisition/Disposition Policy, V.A.6)

ZAA: "If a formal complaint is received by the Association resulting in an investigation that brings the Accreditation status of a member into question, the Association reserves the right to review all impending transactions with this member through the Association's Accreditation Breach Policy in consultation with the ASMP Committee." (5. Species management, 4.3 policy content, 17)

### **Memberships**

EAZA: "Full membership: Granted to a zoo or aquarium located in a European country that maintains suitable standards of management and animal husbandry and complies with all other EAZA standards. Associate membership: Can be granted to individuals, professional organisations or groups deemed fit by the EAZA Council. Zoos and aquariums that fulfil the criteria put forward for Full Membership but are not located in a European country can also become Associate members. Temporary membership: Granted to zoos and aquariums that do not yet meet the standards required for Full/Associate Membership of EAZA. These institutions will be judged as being capable of reaching Full/Associate Membership within a one to two year timeframe. Candidate membership: Can be granted to zoos under construction (not yet open to the public) and to those institutions that are working towards compliance with EAZA accreditation standards. Institutions in this category are offered a range of technical assistance and consultancy, mainly provided and supervised by the EAZA Committee on technical assistance." (http://www.eaza.net/membership/Pages/Become%20a %20Member.aspx) and "Full members of EAZA are obligated to participate in scientifically-based coordinated breeding programmes at national, European and global levels (Article 11.1.d of the EAZA Constitution, 2006)." (Population management manual, pp. 36) and "There are EAZA Associate members with-, as well as EAZA Associate members without-, an animal collection. EEP participation is not applicable to Associate members without an animal collection. The EEP participation procedure for full members as described above is also applicable to Associate members with an animal collection." (Population management manual, pp. 37) and "The EEP participation procedure for full members as described in 2.4.1 above is also applicable to Temporary members of EAZA. However, Temporary members are not allowed to acquire additional EEP species. Exceptional cases can be forwarded to the EEP Committee for approval." (Population management manual, pp. 37) and "Candidates for EAZA Membership – zoo under construction cannot automatically participate in EEPs (EAZA Constitution, 2006). The candidate members' participation in an EEP will need to be approved by the EEP Committee for each EEP." (Population management manual, pp. 37) and "Candidate Members –

<u>substandard zoos</u> cannot automatically participate in EEPs (EAZA Constitution, 2006). The EAZA Technical Assistance Committee appoints a mentor to these institutions, who helps the institution in the process towards complying with the EAZA standards. EEP participation will only be possible after liaising with the appointed Mentor of the institution. If the mentor is in favour of non-EAZA EEP participation in a certain EEP, the participation will then need to be approved by the EEP Committee. (Population management manual, pp. 37-38)

AZA: "AZA-accredited institutions: Represent zoological parks or aquariums that maintain both a professional staff and a more-than-token collection of wildlife, providing the collection with appropriate care, exhibiting them in an aesthetic manner on a regularly scheduled, predictable basis. Institutional Members have as their primary business the exhibition, conservation, and preservation of the earth's fauna in an educational and scientific manner. Conservation Partners: Organizations that support the vision mission and goals of zoos and aquariums, then it can apply for Conservation Partner. Conservation Partners can be, but are not limited to, societies directly associated with Institution Members of AZA, conservation groups, university zoology departments, and other organizations without a permanent wildlife collection. Certified Related Facilities (CRFs): Represent facilities that maintain both a professional staff and a more-than-token collection of wildlife, providing the collection with appropriate care, but is not open to the public on a regularly scheduled, predictable basis. This includes, but is not limited to, wildlife parks, wildlife refuges, rehabilitation centers, research organizations, sanctuaries, survival centers, educational organizations, and nature centers." (http://www.aza.org/membership-for-organizations/)

AZA Membership Benefits for Organizations: "Participation in AZA's signature **Species Survival Plan (SSP)** program, facilitating the management and conservation of more than 150 species. Institutional membership also provides access to tools that facilitate the exchange of animals between accredited institutions." (http://www.aza.org/Membership/detail.aspx?id=703)

ZAA: "<u>Full Institutional Member</u>: A permanent facility maintaining captive wild animals, open to the visiting public, undergo accreditation, agree to codes, policies and guidelines and other criteria. <u>Associate Institutional Member</u>: Have animal collections or plan to have animal collections. <u>Subscribing Member</u>: Education and government departments."

(http://www.zooaquarium.org.au/index.php/who-we-are/join-or-renew-membership-online/)

ZAA Full institutional members: "Ability to hold CITES I species under the Australian EPBC Act by being part of a Cooperative Conservation Program (CCP), this does not apply to New Zealand Institutions as DOC does not require a CCP to hold CITES I species in New Zealand. (<a href="http://zozo1858.staging-zeus.netregistry.net/index.php/who-we-are/join-or-renew-membership-online/full-institution-membership/">http://zozo1858.staging-zeus.netregistry.net/index.php/who-we-are/join-or-renew-membership-online/full-institution-membership/</a>)

ZAA Associate Institutional Members: "Able to receive surplus ASMP specimens, if available, noting that all ASMP programs aim to not produce surplus and as such access to many program species (especially exotic species) cannot be guaranteed to Associate members, nor will surplus be specifically bred to meet demand beyond Full membership (Associate Institutional members only)."

(<a href="http://zozo1858.staging-zeus.netregistry.net/index.php/who-we-are/join-or-renew-membership-online/associate-institution/">http://zozo1858.staging-zeus.netregistry.net/index.php/who-we-are/join-or-renew-membership-online/associate-institution/</a>)

## Ownership agreements

EAZA: "In order to ensure a proper management of the animals in EAZA institutions it is essential to address the issue of ownership and responsibility. With ownership follows the right to make decisions about the animal in question whereas the responsibility for care, health and welfare lies with the holder. Often owner and holding institution will be the same, and in such cases the right to make decisions and the responsibility for the animals go hand in hand. But in cases of animals on loan the owner and the holder are two separate institutions. In such cases the right to make decisions still stays with the owner (unless otherwise decided in the loan contract) whereas the responsibility for the animal (care, health, welfare) is transferred to the holder that has the animal on loan. Animals born from animals owned by the institution where the animal is born obviously belong to the owner. But in cases where animals are born by animals on loan to another institution the ownership

lies with the holding institution unless otherwise described in the loan agreement. In order to avoid confusion it is thus essential that a loan agreement is signed by both parties in all cases of animals transferred on loan, and that ownership of any offspring is specifically addressed in this agreement.

With regards to EEP and ESB species it must be ensured that the ownership issue does not become an obstacle or a delaying factor for the recommended transfers and other associated activities. Since neither EEPs nor ESBs are legal entities they can not own any animals. It is therefore not enough for a loan agreement to state that any offspring must be disposed of in accordance with the EEP. Such a paragraph only addresses the decision making process, not the ownership, so ownership of offspring must be clearly articulated in all loan agreements. The loan agreement should also specifically address decisions relating to the disposal of the offspring.

Furthermore with regard to EEP and ESB species it must be taken into consideration that communication is between the holder and the species coordinator/studbook keeper. Species coordinators and studbook keepers only refer recommendations to the holders, and in case the holder is not authorised to make the necessary decisions about transfers etc. it is up to the holder to clear the recommended transfers etc. with the actual owner." (Population management policy, pp.76-77) and "If it is recommended by the EEP Coordinator to transfer animals to a Temporary Member it is strongly suggested to do this on a 'on loan' basis only." (Population management manual, pp. 37)

AZA: "It is the obligation of every loaning institution to monitor, at least annually, the conditions of any loaned specimens and the ability of the recipient to provide proper care. If the conditions and care of animals are in violation of the loan agreement, it is the obligation of the loaning institution to recall the animal. Furthermore, an institution's loaning policy must not be in conflict with this A/D Policy." (Acquisition/Disposition Policy, V.A.10)

ZAA: "Full Member institutions agree to implement transactions of ASMP Program Species to other Full Members under an open exchange basis, and only loaned (including any offspring produced) to Associate Member institutions. Any loan animal(s) is the responsibility of the sending institution until such time that the loan is ended or a full transaction has taken place." (5. Species management, 4.3 policy content, 10)

# Transport coordination/responsibility

EAZA: "Appropriate staff should be involved in preparing and (when relevant) accompanying the transport. All necessary permits (e.g. CITES) and other official paperwork need to be arranged prior to departure and copies need to be in possession of the transporter. The transporter must comply with any national legislation on licensing, speed limits, rest times, etc." (EAZA Guideline on Animal Transport, 5) and "EAZA members must ensure animals are fit before being transported and should ensure that the means of transport (crates, tanks, boxes, vehicles, etc.) are appropriate and guarantee the welfare of the animals and the safety of staff from loading until releasing at final destination. Where appropriate, animals should be accompanied by qualified staff. EAZA members should assess the need to exchange staff prior to and/or after the transport to reduce potential stress. All parties involved in the transport are responsible for the relevant exchange of information prior to, during and after transport." (Population management manual, pp. 76) and "The zoo sending the animal is responsible for choosing the right means for transport from "A to B". In case a third party is involved in the transport the sending zoo is responsible for the professional transportation of the animal. The sending zoo should also be informed about the route and the time table of the transport." (EAZA guideline on animal transport)

AZA: Safe transport also requires the assignment of an adequate number of appropriately trained personnel (by institution or contractor) who are equipped and prepared to handle contingencies and/or emergencies that may occur in the course of transport. Planning and coordination for animal transport requires good communication among all affected parties, plans for a variety of emergencies and contingencies that may arise, and timely execution of the transport. At no time should the animal(s) or people be subjected to unnecessary risk or danger (Animal Care Manual Template, 3.1 transport preparations)

ZAA: "When transporting animals, Association members must: (...) Develop Travel Plans for transport shipment (....). All transport arrangements, including costs, methods of containment, transport, departure and arrival details, must be agreed to, documented and confirmed between the sending and receiving institution prior to travel commencing." (4. Collection management, 4.3.1) and "Association members commit to undertake all transport of live animals in a manner that minimises any risks to the health and well-being of the specimen(s)." (4. Collection management, 4.3.1)

## **Transport finances**

EAZA: No data

AZA: No data

ZAA: "It is standard practice for the receiving institution to pay all reasonable costs for transport (including the costs of crates if they are not returned to the sender at the receiver's expense)."
(4. Collection management, 4.3)

# Appendix III 'Additional data on subjects with no data in policies'

After comparing the policies it appeared that data for several subjects lacked in one or more policy documents. For those subjects, the representatives of EAZA, AZA and ZAA were asked for additional information during the interviews. This appendix contains an overview of the representatives' literal additions to those subjects.

## Violations of recommendations

ZAA: "We deal with such things here is that we have a strong set of policy and procedures around our code of ethics. This code requires our members to follow our policy and procedure. (...) It is equal with the other regions, but just higher up in the policy hierarchy. We've got procedures and methods that are similar to the other regions and it would probably end with a member losing its membership in a worst case scenario."

## **Acquisition responsibility**

EAZA: "Our policy is identical, yet we might need to make this more explicit in our policies. The phasing of ZAA is slightly different as the AZA one and I prefer the ZAA version."

## Law and regulation regarding acquisition

EAZA: "This subject is not mentioned in our population management policy, but similar statements as AZA and ZAA can be found in the EAZA Constitution."

## **Acquisition finances**

AZA: "We don't have any policies on SSP animals about finances. We discuss it a lot, but there are no hard rules on it."

## Acquisition from the wild

ZAA: "We do not have a policy in this, but we are very aligned with EAZA. Acquisitions from the wild will have to be for a very good reason and under a population management framework."

## Violations of acquisition policies

ZAA: "The Australian government has very strict regulations on moving animals in and out of the country. If it is involved in any level of management, our government knows which animals are in programmes, or they contact us and ask us for an endorsement that this is an approved or recommended transaction. If we go back to them and say that the program we are running and this is not a recommended transaction, then they will not issue a permit to bring the animal in. So in some ways we don't really need to be worried about a policy here, because we are directly working with the government".

## **Disposition responsibility**

EAZA: "Our policy is identical, yet we might need to make this more explicit in our policies. The phasing of ZAA is slightly different as the AZA one and I prefer the ZAA version."

ZAA: "We as an organisation facilitate recommendations, but the implementation rests with the institutions.

## Law and regulation regarding disposition

EAZA: "This subject is not mentioned in our population management policy, but similar statements as AZA and ZAA can be found in the EAZA Constitution."

## **Disposition finances**

AZA: "We don't have any policies on SSP animals about finances. We discuss it a lot, but there are no hard rules on it"

### Violation of disposition policy

ZAA: "The Australian government has very strict regulations on moving animals in and out of the country. If it is involved in any level of management, our government knows which animals are in programmes, or they contact us and ask us for an endorsement that this is an approved or recommended transaction. If we go back to them and say that the program we are running and this is not a recommended transaction, then they will not issue a permit to bring the animal in. So in some ways we don't really need to be worried about a policy here, because we are directly working with the government".

## Ownership agreements

AZA: "AZA does not have a template for agreements, it's a responsibility for the institutions and owners, hopefully in coordination with the coordinators, because we do not tag ownership in our studbook."

# Transport coordination and responsibility

AZA: "This is dependent on the institution."

ZAA: "If you are a full member of our association, we expect that the animals are donated status gratis. If you are an association member, which is new members coming in but are still proving their worth. They get only animals that are involved in a programme on basis of loan. Until such time that they a eligible for full membership. (...) The only exceptions to this are number of high profile Australian animals that are covered by a Ambassador agreement where the government of Australia would stipulate ownership to remain with Australia."

## **Transport finances**

EAZA: "Our policies are quite similar to ZAA's policies. (...) The policies might not contradict each other. Yet this is such an important part of cooperation that it is worth spending time harmonising our policies fully".

AZA: "We don't have any policies on SSP animals about finances. We discuss it a lot, but there are no hard rules on it."

# Appendix IV 'Possible bottlenecks according to representatives'

Table 1 contains an overview of the answer on the question 'do you expect this subject to cause a bottleneck during the implementation of GSMPs?'. The representatives have answered this question for each subject with 'yes', 'perhaps' of 'no'. Motivations for their answers can be found below.

Table 1 Overview of answers on possible bottlenecks

Subject	EAZA	AZA	ZAA
Recommendation decision	no	no	no
Acquisition decision	no	no	perhaps
Acquisition finances	yes	perhaps	yes
Acquisition from external parties	perhaps	no/perhaps	perhaps
Disposition decision	perhaps	no	yes
Disposition finances	yes	perhaps	yes
Disposition to external parties	no	no/perhaps	perhaps
Reintroduction	perhaps	no	perhaps
Ownership agreements	no	perhaps/yes	perhaps
Transport coordination and responsibility	perhaps	perhaps	no
Transport finances	perhaps	perhaps	perhaps

### **Recommendation decision**

EAZA: "Arguable our procedures in EAZA are most time consuming, perhaps comparable to AZA. However in AZA, more hands on professional guidance is available."

AZA: "Probably no problems."

ZAA: "Not a major issue, unless the program is a group A, to manage the population on a global level, on an annual operations basis. So essentially taken what would normally happen in de EAZA and what normally happen with us is that we roll out annually. If you are trying to do that globally, I think that that will be an issue if you do that only once every three years. But given that the trust of global management has been to create a master plan to which each region subscribes and works their program towards, using their own regional policies and requirements. I think this is fine."

### **Acquisition decision**

EAZA: "I think in essence / daily practise the policies are rather comparable. Our policy may sound a tap stricter compared to AZA but it is not implemented as strict in many cases."

AZA: "Curator makes the decision to acquire an animal. Director or curator can be IR as well. They should be taking to the species coordinators when they are making any sort of acquisitions. As long as everyone is communicating it should not be an issue."

ZAA: "Where we see things starting to get tricky is when we are trying to acquire animals from other regions' programs, sometimes they can be a little drawn out. This means that we don't have a policy in some cases where we are seen as a non-member by another region. We've been collectively talking about that we should all amend our policies in which we give credibility to each other as partners and peers, rather than just non-members."

## **Acquisition finances**

EAZA: "Joint programmes should be non-commercial. This is key in EAZA policies. If AZA differs there is, this might cause problems when discussing GSMPs."

AZA: "We don't have any policies on SSP animals about finances. We discuss it a lot, but there are no hard rules on it. It's also a case by case situation and it will probably be a discussion for some species."

ZAA: "We don't get involved in any money. We all take our responsibility. This is the big difference between us and the Americans. No animals are sold, the cost recovery for reasonable expense, transport, more than reasonable, but there is no value on the head of the animal. We would not expect to pay for the animal coming here. We might expect that a reasonable reciprocal exchange, not exactly for the same animal and not necessarily to the same institution. Some call us idealistic, but we would be quite happy, for arguments sake, if we were to provide something to another region which is part of a program, we are quite happy to receive something else back to a totally different organisation and a totally different species, that might benefit our region in return not necessarily the same species back into the same organisation. We see ourselves as an entity, that provides benefit and would like to receive benefit. Obviously if it would get back to the same institution that would be a bonus, but it is not a prerequisite.

We will not pay for animals coming in as part of programs. We would be happy to pay money for under the normal transaction arrangements, which is: receiving institution pays for transport costs, and reasonable costs around the essential quarantine requirements. We are happy to pay for crates, if there is a pre existing agreement around conservation contribution as part of the relocation of animals, particularly in a range state, then that is not a problem. But just to pay a market price for an animal, no way."

### **Acquisition from external parties**

EAZA: "I think in essence / daily practise the policies are rather comparable. Our policy may sound a tap stricter compared to AZA, but it is not implemented as strict in many cases. However, I have not fully grasped the attitude of cooperation between AZA and non-AZA in the region. AZA and EAZA have different attitudes towards cooperating with dealers, which is more likely to cause problems."

AZA:" We all investigate where we're getting animals from. No problems with that, I don't know very much about the details for EAZA and ZAA. Maybe it is a perhaps, depending on who the source is."

ZAA: "We're probably the tightest on this, we really like to know where stuff comes from, this has more to do with the fact that in the past we have been a dumping ground for rubbish animals and because of the costs of transports down to Australia it is also in the context of providing business service to make sure that if a member of our association is seeking to acquire an animal, that this is going to be a genuine asset to our program rather than a cast off. So it is about making sure that their investment is the best investment they can make in the program. For GSMP I think that if we're going to put money on the table for an expensive relocation, that we really want to review the context of that rather than taking it on advice from another party. We're checking up on people to make sure that things are as good as we'd hope they would be."

# **Disposition decision**

EAZA: "I think in essence / daily practise the policies are rather comparable. Our policy may sound a tap stricter compared to AZA, but it is not implemented as strict in many cases. However, I have not fully grasped the attitude of cooperation between AZA and non-AZA in the region. AZA and EAZA have different attitudes towards cooperating with dealers, which is more likely to cause problems."

AZA: "Institutions should look at the RCP and talk to the coordinators. We're going to start reviewing our A/D policy."

ZAA: "We're very stringent on this, we don't have private ownership of exotic animals in Australia. Our policy is essentially that program animals are not available for non-members of our association. We're really tight on that as well. On too many occasions it has cost us our reputation in the industry if

animals end up in private zoos, private wildlife parks that are not part of the association and not subject to our code of conduct. Whereas I know that that is different in both Europe and the US. Our expectation for a GSMP would be a contract, if we were supplying an animal that that would not leave the GSMP, certainly not without reference to us if it would happen. If that animal was to be found in a less than ideal situation, and it hits the media that it was Australia that supplied the animal, we get asked questions about why we've entered an arrangement with that outcome as a potential. The other issue is that if that animal is an Australian native animal, that is part of the Government's ambassador agreement, there is also a legal requirement for those animals to stay in the program and not to be surplused. So for certain Australian animals it is a legal issue."

## **Disposition finances**

EAZA: "Joint programmes should be non-commercial. This is key in EAZA policies. If AZA differs there is, this might cause problems when discussing GSMPs."

AZA: "We don't have any policies on SSP animals about finances. We discuss it a lot, but there are no hard rules on it. It's also a case by case situation and it will probably be a discussion for some species."

ZAA: "Again very similar to the acquisition finances. We do not support making a profit out transfers particularly where it is a cooperative management is involved. But we would expect the receiving organisation to pay for crating, costs of transport and any of the receiving governments' requirements around quarantine. However, the only thing I do have to say that in some cases we ... (31:53) than. For argument sake, if we are sending animal back to a range state as part of a release programme we will as well pick up the bill for all transport costs. We are not expecting the range state to pay for that, but i think that most of the regions would have that decision. Not commercial. If we're sending an animal from here to the states, we expect the US zoo to pay the transport costs. But if we are sending an animal back for a release to a range country, for example Indonesia, we would pick up the bill for transport."

## **Disposition to external parties**

EAZA: "I do not think it will be a problem. Yet in terms of GSMPs it is very important to follow advice from the regional association when discussing/considering as institution that is not a member as candidate for inclusion in the GSMP."

AZA: "For certain species, this will be case by case. We all have good A/D policies and we all want to know who we're dealing with. It's good to discuss this every time, to make sure everybody is fine."

ZAA: "We don't support dispositions to third parties. When on the odd occasion that there is an exemption I think we have got that covered quite well with our policy. Our expectation of going into a joint agreement of global management, that the species is of sufficient conservation importance, that we would not expect these animals to drop out of a regional management program. If they were... We would not necessarily say no, we would just want them to be stated up front and we may be concerned if individuals that we contributed to the program would leave the program after the transfer from Australia. Again, reputation. And the fact that they stay under ownership of a regional zoo association, the membership has the obligation to a code of conduct and a set of ratifications if they do not behave in a manner that reflects favourably on the associations. Whereas if you are a non member organisation, you are accountable to no one."

#### Reintroduction

EAZA: "The disposition policies seem to apply to this for a large extend. I am surprised that AZA and ZAA do not refer to IUCN" and "Voor het programma is het niet altijd vervelend al er zo'n duidelijke eigenaar structure is, want dat maakt het ook wel duidelijk wie uiteindelijk beslist over die aanbevelingen. De gouden leeuw aapjes zijn ook nog allemaal eigendom van Brazilianze overheid. en ieder dier dat wij houden moet worden goedgekeurt door de Braziliaanze overheid. Dat geeft af en toe echt wel hele lastige cases en hoofdpijn, maar door die strenge eisen zitten dierentuinen er wel boven op, want ze zorgen dat ze hun act together hebben al ze zo'n soort hebben en dat komt zo'n programma dan ook vaak te goede."

AZA: "It's usually something that coordinators, specialist groups, governments etc work together on, it would always involve state or federal regulatory people."

ZAA: "This one is interesting, because of the unique situation in which we are. We participate in such a large number of native species programs for which release is a significant part of any of those programs. In some cases our primary responsibility is to a recovery group that often sits under the government's framework. In some cases we have some quite novel situations under which reintroduction or introduction is essentially done. We would probably take the position that we would acknowledge the IUCN guidelines; we would not necessarily use them as a prerequisite for the introduction however. We acknowledge and honour the intent, in an advisory capacity, but we are not answerable to the IUCN, we are answerable to our government. We acknowledge that there is a very reasonable and quality analysis, which has gone into that decision, but we don't consider it as an obligation. The responsibility lies either with State or Federal government. We've got several scenarios: in Australia, you have state government, you have e central or federal government, recovery plans and authority to release wildlife into the wild can stick with either of those. Depending if the recovery is at state level or at national level. In New Zealand there is one national government. But in both countries, the permission to release or reintroduce is all set by government process under strict permitting arrangements. For other regions, we would default the IUCN guidelines. Well, yes but no.. We honour and acknowledge the IUCN, but we would also expect something for the pragmatism. It's more like it's one of the strong things in the toolbox, but it is not the entire toolbox. BUT we would not say 'Oh because it does not meet all the requirements of the IUCN, we are not doing it.' The only thing we might have an issue on is, if we have a region that just said 'look we are going to divorce yourself of our own thought process and just say we are only going to listen to that third party.' Because I think that there is a level of complexity around these reintroductions and reintroduction biology is still an emerging science and you know we typically do not get involved in reintroductions outside of our own region. I think it would be a case-by-case, because we had some introductions done in our region where people have said that 'well that does not subscribe the IUCN, you can not do that' But we have said 'The IUCN are not our masters, we acknowledge their expertise and we honour their professionalism, but there will be times that we make a decision that may not necessarily be entirely in line with their position. I think that we also extend that to out of country. If the evidence where suggesting an overriding benefit to the conservation outcome, we would be happy not ticking all the boxes. But that we be under consultation with all of the partners, so it will be a joint decision. We won't be a region of objection, we would seeking to make a collective decision."

## Ownership agreements

EAZA: "Wat belangrijk is, is dat ownership een rol speelt, het is belangrijk te weten wie legally een dier in eigendom heeft. ik denk dat we het daar over eens zijn. je kan alleen van een EEP coördinator niet verwachten dat die zich ermee gaat bemoeien. Een EEP coördinator werkt met contactpersonen per tuin die de dieren heeft, dus waar het dier op dat moment verblijft. Als er een aanbeveling komt voor een dier dat eigendom is van blijdorp maar staat in Artis, dan werkt de coördinator met Artis. artis moet duidelijk maken van wie het dier is en als er een aanbeveling komt dan moet Artis met de officiele eigenaar overleggen of die akkoord gaan, dat is geen taak voor de coördinator. EAZA zegt dat als je lid bent van EAZA, dan doe je mee in de spirit van het programma, wat van belang is voor die populatie. Je kan geen dier hebben waarvan niemand weet wie de eigenaar is. alleen al voor CITES. Ieder dier heeft een eigenaar en we vinden het belangrijk dat dat duidelijk. Als er een transactie plaats vind, moet er ook duidelijk worden wie de eigenaar is. De tuinen moeten het

inderdaad samen oplossen en er komt 1 versie uit, 1 eigenaar. Het kan zijn dat de eigenaar van invloed is op aanbevelingen die je doet. daarom zeggen we dat de tuinen zich er aan moeten houden, omdat ze meewerken binnen het kader van het EEP. In die zin bedoelen we misschien hetzelfde, maar bij onze policy staat het expliciet. De AZA bemoeit zich er echt niet mee, maar ik denk niet dat het een probleem wordt. Wij werken meer met on loan en daar gaat het meer met verkoop, dus dan is sowieso duidelijker van wie een dier is.

In Amerika is alles juridisch toch heel goed afgekaart, zij zullen onze discussie niet eens snappen. In Australia is alles op open exchange basis, behave bij native fauna, dan is het on loan als het naar een ander land gaat. Maar ik geloof niet dat dit een probleem wordt, en anders zullen wij waarschijnlijk degenen zijn die het probleem maken."

AZA: "This is something that would be a perhaps to yes. Definitely for certain species. AZA does not have a template for agreements, it's a responsibility for the institutions and owners, hopefully in coordination with the coordinators, because we do not tag ownership in our studbook."

ZAA: "If you are a full member of our association we expect that the animals are donated status gratis. If you are an association member, which are new members coming in but are still proving their worth. They get only animals that are involved in a programme on basis of loan. Until such time that they an eligible for full membership. That we pretty much extent to animal we would provide to other regions as part of a global collective. That animals would be provided on an open exchange. The only exceptions to this are number of high profile Australian animals that are covered by an Ambassador agreement where the government of Australia would stipulate ownership to remain with Australia. So, animals like koalas, the really big high profile Australian species often then provided on a government arrangement, ownership remains with Australia. In case of a GSMP of koalas or other high profile Australian species, we would want to own that GSMP. For us, everything is on open exchange basis, unless there is a government requirement to retain ownership. Golden lion tamarins are for example owned by Brazil, that's fine with us. If a government wants to own our own animals, but we don't expect to loan animals out, we're just happy to provide them gratis. This create some issues with animals coming in, because we have some regions that wish to retain ownerships of animals provided to us on loan. That's fine, as long as it is up front. As long as such an agreement is stated ahead of the transaction, that's fine. The only thing is that we might play hardball and say: if you are only going to provide us these animals on loan, we're not going to provide them gratis in return. We'd be looking for a quality on provision of animal arrangements. We'd be very happy to provide them gratis, expecting them to go back into our program on the same basis. If a region insists on a loan, then we may well say that we're only going to provide reciprocal animals back on loan too. It depends on the situation. But we would not hinder the movement of animals for the benefit of the program."

## Transport coordination and responsibility

EAZA: "The policies might not contradict each other. Yet this is such an important part of cooperation that it is worth spending time harmonizing our policies fully."

AZA: "This is really case by case too. This is dependent on the institution."

ZAA: "The coordination and responsibility for transports sits with the institution. As does transport finances. We see the GSMP as a facilitator of the master plan and then the physical implementations is up to the regions to agree on. The individual transactions of animals are down to the individual organisations. Again, there is an exception if that program has range state involvement, because you're not going to play hard ball if someone is going to provide you with new founders."

## **Transport finances**

EAZA: "The policies might not contradict each other. Yet this is such an important part of cooperation that it is worth spending time harmonizing our policies fully."

AZA: "Case by case."

ZAA: "Very alike with above, the only time when we as a region would get involved in finances is when we are the range state and there was an expectation that there's part of involvement in that program that receiving parties were to make a contribution to ex-situ conservation, in which case we'd expect that to be facilitated through us as a regional associations office, not through the individual organisations. So if there were any national requirement to collect funds, we would say that this would happen at regional level instead of institutional. And similarly, if we were involved in an American program, we would probably not want to provide those funds to a individual institution, to beyond send to in-situ conservation. We would want them to go to an agreed central fund. If the costs are directly related to the transport of the animal, that goes to the individual institution, but funding for conservation support, we would want to see a counsel managed by the regional zoo association or another bonafide central body, rather than an individual institution."