

ELEPHANT INCLOSURE

CASE STORY FROM COPENHAGEN ZOO

JUNI 2025

Category: Large Enclosure or Stable

Animals: 1 male elephant

Indoor Area: 127 m²

Total Layer Depth: Approx. 100 cm

Why Switch to Biobed?

Copenhagen Zoo replaced the sand bedding with Biobed in april 2025.

The main reason was to reduce dust and odors in the facility, benefiting both the elephants and the zookeepers. Another important reason was to prevent dust from affecting electrical and mechanical equipment such as gates, windows and machines.

Construction of the Biobed Layer

The bottom layer (50 cm) consists of very coarse Biobed material, which serves as a drainage layer and it decomposes very slowly. The top layer (50 cm) is Biobed ZOO XL —a type specifically developed for large animals and also used in outdoor enclosures.

From Sand to Biobed

One advantage of switching from sand is that sand can become extremely compacted (almost like concrete) over time due to elephants walking on it continuously which is hard on the elephants' feet and joints. Because Biobed contains a high proportion of wood chips, it provides a softer, more resilient substrate for the animals.

Furthermore, sand is not a renewable resource and therefore not a sustainable solution.

In the long term, it is also expected that the Biobed will generate some heat through composting, functioning like an underfloor heating system. This could reduce the need for heating.

Early Observations

After two months, it has been observed that the male elephant prefers sleeping on the Biobed rather than on sand. It is well known that animals tend to prefer sleeping on bioactive bedding, likely because it contains less ammonia and it's softer bedding. Whether the male elephant preference is due to the reduced ammonia or the softer surface remains unclear.

Contact for more information

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