**Purpose, objective: test limitations in information sources, to compare to Paper 05 chatClimate results.**

**NO RESTRICTIONS REGARDING INFO SOURCES (answer freely)**

**Prompt:**  Is there evidence of maladaptation?

**Answer** : Yes, there is evidence of maladaptation in various contexts. Maladaptation refers to traits or behaviors that are more harmful than beneficial to an organism's fitness or survival. Here are a few examples:

1. **Evolutionary Biology**: In some cases, traits that were once advantageous can become maladaptive due to changes in the environment. For instance, the large antlers of the Irish elk, which were initially beneficial for mating displays, eventually became a hindrance and contributed to the species' extinction[[1]](https://en.wikipedia.org/wiki/Maladaptation).
2. **Climate Change Adaptation**: Some national adaptation policies intended to mitigate climate change impacts have inadvertently led to maladaptive outcomes. For example, certain infrastructure projects designed to protect against flooding have sometimes increased vulnerability in other areas[[2]](https://journals.plos.org/climate/article?id=10.1371/journal.pclm.0000213).
3. **Neuroplasticity**: While the brain's ability to reorganize itself is generally beneficial, it can also lead to maladaptive outcomes. An example is phantom limb pain, where individuals who have lost a limb continue to experience pain in the missing limb due to the brain's maladaptive response[[1]](https://en.wikipedia.org/wiki/Maladaptation).

These examples highlight how maladaptation can occur in different contexts, often as a result of complex interactions between genetics, environment, and behavior.

Is there a specific context or example of maladaptation you're interested in learning more about?

**References**

[1] [Maladaptation - Wikipedia](https://en.wikipedia.org/wiki/Maladaptation)

[2] [Maladaptation as a concept and a metric in national adaptation ... - PLOS](https://journals.plos.org/climate/article?id=10.1371/journal.pclm.0000213)

[3] [Maladaptation: Natural Selection in the Wrong Direction?](https://academic.oup.com/book/57535)

[4] [MALADAPTATION definition | Cambridge English Dictionary](https://dictionary.cambridge.org/us/dictionary/english/maladaptation)

**RESTRICT TO SOURCE PROVIDED:**

**Prompt:**  Answer the following question ONLY based on the information provided in attachment (user information). If you use user information, please indicate the Page and Reference, which are provided below each piece of information. If the information cannot be found in the user information, please say ’I don’t know’. Question: Is there evidence of maladaptation?



**Answer** : Yes, there is evidence of maladaptation. According to the provided document, there is increased evidence of maladaptation in various sectors and regions. Examples include urban areas with new infrastructure that cannot be easily adjusted, agriculture using high-cost irrigation in drought-prone areas, fire suppression in naturally fire-adapted ecosystems, and hard defenses against flooding. Maladaptation especially affects marginalized and vulnerable groups, reinforcing and entrenching existing inequities (Page 61, Reference: WGII SPM C.4, WGII SPM C.4.3, WGII TS.D.3.1).

**Observation: 🡺 correct answer, correct place in report, correct reference and page number.**

**RESTRICT TO SOURCE PROVIDED + OWN IN\_HOUSE KNOWLEDGE**

**Prompt:**  Answer the following question ONLY based on the information provided in attachment (user information) AND your in-house knowledge. If you use user information, please indicate the Page and Reference, which are provided below each piece of information. If the information cannot be found in the user information, please say ’I don’t know’. Question: Is there evidence of maladaptation? Report\_07\_IPCC\_AR6\_SYR\_FullVolume 34.txt

**Answer** : Yes, there is evidence of maladaptation. According to the provided information, maladaptation has been observed in various sectors and regions. Examples include:

1. **Urban Areas**: New urban infrastructure that cannot be adjusted easily or affordably.
2. **Agriculture**: Using high-cost irrigation in areas projected to have more intense drought conditions.
3. **Ecosystems**: Fire suppression in naturally fire-adapted ecosystems.
4. **Human Settlements**: Hard defences against flooding that can result in lock-ins and increase exposure to climate risks in the long term unless integrated into a long-term adaptive plan.

Maladaptation especially affects marginalized and vulnerable groups adversely, reinforcing and entrenching existing inequities. It can be avoided by flexible, multi-sectoral, inclusive, and long-term planning and implementation of adaptation actions with benefits to many sectors and systems (Page 61, Reference: WGII SPM C.4, WGII SPM C.4.3, WGII TS.D.3.1).

🡺 answer is correct.

Now we want to know what part comes from the report and what from inhouse knowledge (own LM knowledge provided during training).

**Prompt:**  Answer the following question ONLY based on the information provided in attachment (user information) AND your own in-house knowledge. please indicate the Page and Reference, which are provided below each piece of information. Additionally, let us know which part of your answer is from the user information and which part is based on your in-house knowledge by writing either (IPCC AR6) or (Inhouse knowledge). If the information cannot be found in the user information or your in-house knowledge, please say ’I don’t know’. Question: Is there evidence of maladaptation? Report\_07\_IPCC\_AR6\_SYR\_FullVolume 35.txt

**Answer** : Yes, there is evidence of maladaptation.

**User Information (IPCC AR6):**

* **Page 55, Reference WGII SPM C.4**: There is increased evidence of maladaptation in various sectors and regions. Examples include urban areas (e.g., new urban infrastructure that cannot be adjusted easily or affordably), agriculture (e.g., using high-cost irrigation in areas projected to have more intense drought conditions), ecosystems (e.g., fire suppression in naturally fire-adapted ecosystems), and human settlements (e.g., stranded assets and vulnerable communities that cannot afford to shift away or adapt and require an increase in social safety nets). Maladaptation especially affects marginalized and vulnerable groups adversely, reinforcing and entrenching existing inequities.

**In-house Knowledge:**

* Maladaptation refers to actions that may lead to increased risk of adverse climate-related outcomes, including increased greenhouse gas emissions, increased or shifted vulnerability to climate change, more inequitable outcomes, or diminished welfare, now or in the future. Most often, maladaptation is an unintended consequence.

If you have any more questions or need further clarification, feel free to ask!

**Observation**: Splits the answer contents between the information taken from teh report, and the info coming from its own knowledge. BUT: introduced a page reference error (Page 55 instead of 61)

NEW CHAT: ask the question again, to check if page reference error is not present.

**Prompt:**  Answer the following question ONLY based on the information provided in attachment (user information) AND your own in-house knowledge. please indicate the Page and Reference, which are provided below each piece of information. Additionally, let us know which part of your answer is from the user information and which part is based on your in-house knowledge by writing either (IPCC AR6) or (Inhouse knowledge). If the information cannot be found in the user information or your in-house knowledge, please say ’I don’t know’. Question: Is there evidence of maladaptation?Report\_07\_IPCC\_AR6\_SYR\_FullVolume 36.txt

**Answer** : Yes, there is evidence of maladaptation.

**User Information (IPCC AR6):**

* Maladaptation refers to actions that may lead to increased risk of adverse climate-related outcomes, including increased greenhouse gas emissions, increased or shifted vulnerability to climate change, more inequitable outcomes, or diminished welfare, now or in the future. Most often, maladaptation is an unintended consequence (Page **124**, Reference: WGII SPM C.4).
* Examples of maladaptation are observed in various sectors and regions, such as:
  + Urban areas: New urban infrastructure that cannot be adjusted easily or affordably (Page **124**, Reference: WGII SPM C.4).
  + Agriculture: Using high-cost irrigation in areas projected to have more intense drought conditions (Page **124**, Reference: WGII SPM C.4).
  + Ecosystems: Fire suppression in naturally fire-adapted ecosystems (Page 124, Reference: WGII SPM C.4).
  + Human settlements: Hard defences against flooding that can result in lock-ins and increase exposure to climate risks in the long term unless integrated into a long-term adaptive plan (Page **124**, Reference: WGII SPM C.4).
* Maladaptation especially affects marginalised and vulnerable groups adversely, reinforcing and entrenching existing inequities (Page **124**, Reference: WGII SPM C.4).
* Maladaptation can be avoided by flexible, multi-sectoral, inclusive, and long-term planning and implementation of adaptation actions with benefits to many sectors and systems (Page **124**, Reference: WGII SPM C.4).

**In-house Knowledge:**

* Maladaptation occurs when adaptation actions fail to consider the broader context and long-term implications, leading to unintended negative consequences. For example, building sea walls to protect against sea level rise can lead to increased vulnerability if not integrated with broader coastal management plans (Inhouse knowledge).

If the information cannot be found in the user information or your in-house knowledge, please say ’I don’t know’.

**Prompt:**

**Answer** :

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