



The role of values in future scenarios: what types of values underpin (un)sustainable and (un)just futures?

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Values have been recognized as critical leverage points for sustainability transformations. However, there is limited evidence unpacking which types of values are associated with specific types of sustainable and unsustainable futures, as described by future scenarios and other types of futures-related works. This paper builds on a review of 460 future scenarios, visions, and other types of futures-related works in the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services Values Assessment, synthesizing evidence from academia, private sector, governmental and non-governmental strategies, science-policy reports, and arts-based evidence, to identify the types of values of nature that underlie different archetypes of the future. The results demonstrate that futures related to dystopian scenario archetypes such as Regional Competition, Inequality, and Breakdown are mostly underpinned by deeply individualistic and materialistic values. In contrast, futures with more sustainable and just outcomes, such as Global Sustainable Development and Regional Sustainability, tend to be underpinned by a more balanced combination of plural values of nature, with a dominant focus on nature's contribution to societal (as opposed to individual) aspects of well-being. Furthermore, the paper identifies research gaps and illustrates the key importance of acknowledging not only people's specific values directly related to nature, such as instrumental, intrinsic, and relational human-nature values and relationships, but also broad values and worldviews that affect the interactions between nature and society, with resulting impacts on Nature's Contributions to People and opportunities for a good quality of life.

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1. 在 2019 年 12 月 31 日，本公司应收账款的账龄分析如下：

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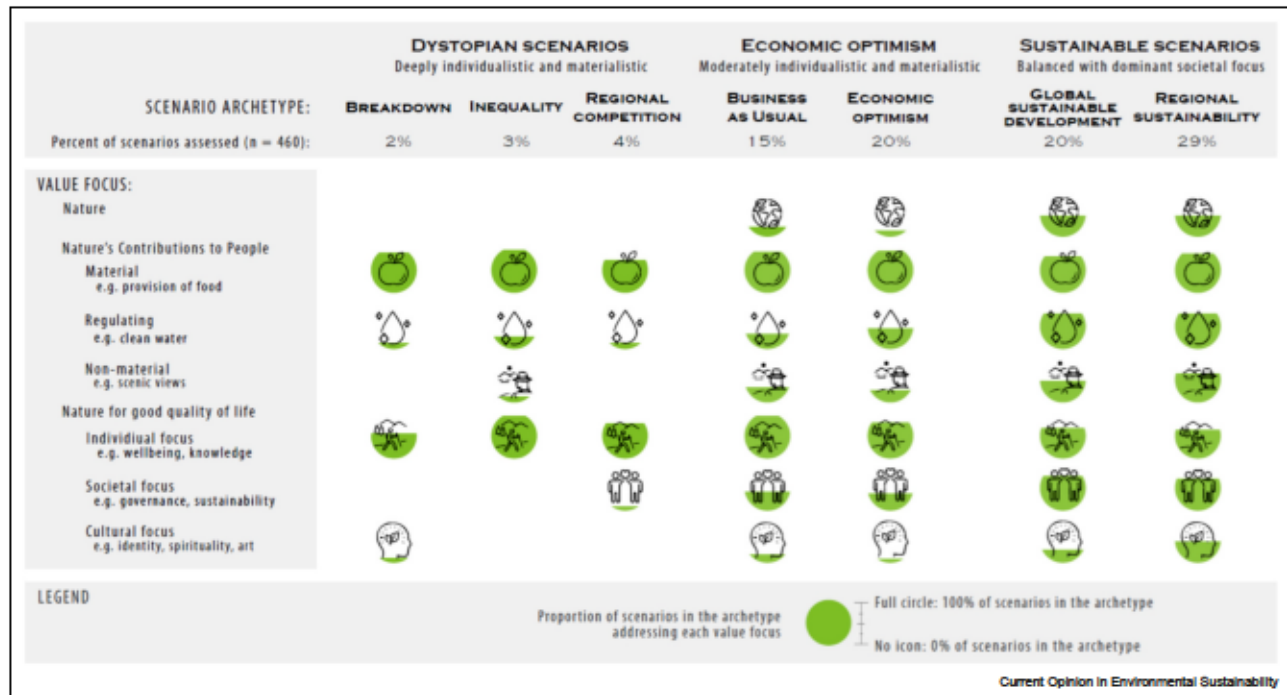
4. **Вопросы к семинару:**

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Figure 1



Value foci by scenario archetype. Each type of a value focus is rendered by a different icon. The proportions of reviewed future scenarios addressing different focal values related to nature, nature's contributions to people, and good quality of life are symbolized by proportional shading of the circle underlying each icon (see legend). Global Sustainable Development and Regional Sustainability are characterized by a larger value plurality compared with the other scenario archetypes. (Figure based on the IPBES Values Assessment [14]; see the [Supplementary material](#) for the underlying data).

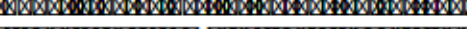
instance, some actors may value individual freedom and prioritize steering their world to a state where individuals do not feel responsible for others, while other actors may value collaboration, care and reciprocity, and seek to steer the world toward a state where people feel collective responsibility for each other, with implications for societal and environmental governance [23].

A number of frameworks have been developed to unpack different types of values, from more categorical to more holistic ones [23–29]. In this respect, to better understand the role of plural values in future scenarios, we adopted the value approach gradually developed within IPBES [24,30] and applied two perspectives: first, the perspective of *value foci*, which shows whether nature is valued for itself (e.g. in the case of species protection), for its role in the provision of nature's contributions to people (e.g. material, nonmaterial, and regulating), or for supporting different aspects of human good quality of life (understood in IPBES as a context-dependent, nonprescriptive set of qualities related to individual, societal, or cultural well-being [16,30,31]; Figure 1). Second, we embraced the perspective of *value justification*, which elucidates whether actors value nature for its own inherent worth (intrinsic values of nature), for

its function in achieving desired outcomes (instrumental values of nature), or for its unique human–nature interactions (relational values of nature) [30]. These two perspectives are related but distinct, for instance, value focus on nature itself may be justified by intrinsic, instrumental, and relational values, or their combination. A complementary IPBES-related perspective on values distinguishes between *broad values* as held, first-order preferences transcending contexts and guiding people's evaluation of events (also referred to as core values [12,32]), and *specific values*, as assigned, second-order preferences relating to the worth or importance of a particular object, or state of the world (also referred to as contextual values [12,33] [24,29,34,35]). In this study, we draw upon this perspective in the discussion part below.

Although numerous social–ecological scenarios exist at different scales and encompass various geographic contexts, they tend to adhere to a small number of general storylines and assumptions, often referred to as scenario families or *archetypes* [7,36,37]. The main purpose of scenario archetypes is to amalgamate the variety of available scenarios into a smaller number of scenario narratives that illustrate the most important differences in how future pathways may unfold [38]. IPBES science-policy assessments build on several seminal scenario

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3. 在“数据”选项卡中，单击“数据工具”组中的“数据验证”按钮，打开“数据验证”任务窗格，如图 6-3-10 所示。

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4. **Вопрос:** Каким образом можно определить, что человек является носителем генетической информации о своей личности?

Ответ: Генетическая информация о личности человека содержится в его ДНК. ДНК представляет собой молекулу, состоящую из двух комплементарных цепей, соединенных водородными связями. Каждая цепь состоит из сахаро-фосфатного скелета и азотистых оснований. Азотистые основания являются носителями генетической информации. В ДНК человека содержится около 3 миллиардов пар азотистых оснований. Каждая пара оснований кодирует определенную аминокислоту, которая является строительным блоком белка. Белки, в свою очередь, определяют структуру и функцию клеток и тканей организма. Таким образом, генетическая информация о личности человека содержится в его ДНК, которая является уникальным кодом для каждого человека.

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