



Basin Report Cards

TRANSFORMING HOW FRESHWATER IS MANAGED

We depend on thriving, healthy freshwater basins for everything from food and health to energy and economic growth. But rapid development and environmental changes are impacting how well these ecosystems can provide for people and nature. We must act now to manage freshwater resources to ensure they can sustain us long into the future.

In most of the world, the impacts of our actions and of climate change on basins are rarely measured and little understood by key stakeholders, from the general public to government decision-makers. In places where information does exist, it often sits in disparate locations and cannot be easily communicated. This knowledge gap allows decisions about water management to be made behind closed doors or without adequate understanding, often at the expense of the basin's health.

However, where information about basin health is synthesized and delivered via a public platform, such as a report card, people understand the state of their system and are empowered to ensure better management. Some places, such as the Chesapeake Bay, have ongoing report cards that have become go-to resources for the media, advocates, businesses, and government officials seeking to understand watershed conditions.

Unfortunately, only a couple dozen report cards are in use around the world. While “early adopters” have demonstrated the effectiveness of report cards, there is no easily accessible process that local stakeholders can use to create their own science-based report cards, nor any standardized approach that development institutions can confidently support.

WWF hopes to change that. With our partners at the University of Maryland's Center for Environmental Science (UMCES), we are producing, packaging, and sharing a process that can mainstream report card development in basins around the world. By developing these report cards in a variety of basins, we can move closer to our goal of securing freshwater for people and nature.



WHAT WE MEASURE

Because the challenges facing each basin are so unique, each report card will feature a customized set of indicators. However, the indicators will fall under the common categories listed below, which can be examined across basins around the world.

Water Quality & Quantity

This category focuses on the water itself and characteristics such as sediment, chemical qualities, bioindicators, flow, and climate.

Ecological

This category includes environmental elements such as habitat, biochemical processes, and species.

Management & Governance

Indicators under this category measure topics such as legal frameworks, formal and informal institutions, transparency, civil society involvement, and infrastructure operation (e.g., dams).

Health & Nutrition

Because basins include people, indicators should also represent the status of human health and activities. This category includes values such as access to potable water, sanitation, and nutrition.

Economic

All businesses are dependent on water in some way. This category measures aspects of water-related sectors such as transportation, energy, agriculture, tourism, and fisheries, as well as other fundamental economic indicators such as GDP.

Social & Cultural

Around the world, water holds significant cultural, spiritual, and recreational value for people. This category measures such values as they relate to rivers.



OUR PROCESS

With local stakeholders, WWF and UMCES will gather, package, and share freshwater basin health information through credible basin report cards. These documents, which are easy-to-understand and compelling, will help government officials, business leaders, and communities make informed decisions on energy, food, water, and other resources without compromising basin health and essential ecosystem services. The approach is grounded in a transparent and participatory process that engages businesses, civil society, and governments from the onset, ensuring that those who directly depend on the resources can advocate for their values and understand their role in the basin's health. Using this approach, we can develop report cards that not only reveal the status and trends of a basin, but also catalyze improvements in policy, management, and behavior.

Report card development includes six major steps:

1 Engage Stakeholders

Convene diverse stakeholders to understand the various values of the basin and perceived threats. Create a shared vision of the ideal state of the basin and how data can be gathered, reported, and measured.

2 Select Indicators

Identify indicators that correspond to the values and threats identified by the stakeholders and can be reliably and regularly measured for credible data.

3 Define Thresholds

For each indicator, determine the ideal state that would correspond to the best possible grade.

4 Determine Scores & Grades

Tap existing resources and gather new data as needed, then apply the results to thresholds to calculate scores. This analysis results in the grades for a report card.

5 Communicate Results

Inspire positive change by packaging the grades and other findings in a way that can be easily understood by the media, general public, government entities, and private sector.

6 Improve the Scores

Use the grades to make more informed decisions about basin management, track changes over time, and ultimately maintain or improve basin health. Identifying how grades will be impacted by decisions is part of the innovative Future Card process currently being tested with the Luc Hoffman Institute.

Throughout the process, we are building the capacity of local stakeholders to update report card information on an ongoing basis and spur more interest in monitoring and protecting freshwater ecosystems.

CASE STUDY: Colombia's Orinoco River Basin

The Colombian Orinoco River Basin Report Card—the first of our partnership and the first basin report card in South America—came out in July 2016. Through a series of workshops held across the region, approximately 150 stakeholders came together to pinpoint the most important values of, and threats to, their basin. After looking at available data and other materials, a selection of these values and threats became the report card's indicators—things that could be scientifically measured and provide information about the overall condition of the river basin. Each indicator received a final score, and the scores were eventually averaged to reveal the final grade for the basin.



“The report card results invite people here to build strategies for fishing sustainably, improving river transport, and ensuring food security—all to extend the life of the basin and the community.” —William Espinoza-Corpolindosa, *Community Leader, San Jose del Guaviare, Colombia*

The Orinoco River Basin received a B-minus. Overall, the report card shows a basin in transition, facing real and immediate threats from land-use change, loss of forest cover, and ecosystem transformation. The results emphasize the need for integrated land-use planning to ensure development occurs in a sustainable way.

The Orinoco is a river system experiencing the same challenges as many other rivers around the world: industrialization, extractive industries, and large-scale agriculture. Consequently, the Orinoco report card can serve as a model for building comprehensive, community-driven, scientifically credible basin assessments almost anywhere else on the planet.





FROM LOCAL TO GLOBAL

Basin report cards help drive better on-the-ground water management. To maximize their impact, we seek to promote report cards in basins around the world. Therefore, a major focus is to develop a process that can be adapted to diverse basins and their unique needs. Beginning with the Orinoco, WWF and UMCES are working together to identify ways to tailor the process so we can develop credible report cards in data- or resource-limited situations; national or transboundary basins; places where climate impacts are particularly volatile; and regions that lack sufficient funding for, or interest in, conservation measures.

We aim to create and openly share a standardized method that WWF and other organizations can use to measurably improve the health and sustainability of freshwater basins worldwide. The first iteration of our Practitioners' Guide was made available in 2016.

As stakeholders in more basins embrace report cards, more information on freshwater resources will be available at a global scale. Report cards can also support global efforts such as the Sustainable Development Goals (SDGs) set by the UN. They will summarize data that are essential to meeting those goals.

Hard data that can be updated regularly will also allow organizations to quickly determine whether improvements are

occurring and avail themselves of opportunities to adapt and shift as needed. These data will also identify geographically or thematically where interventions are needed most, providing a compass for investments and collaboration. Finally, because each report card will be a local effort, community engagement will be a prerequisite—one that also yields the benefits of local buy-in.

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