Catchment Passport: 3 page guide

Good Stuff International, April 2025

Disclaimer

This is a quick and dirty guide, it addresses the approach we take in the creation of a catchment passport. It is by no means intended to be exhaustive, it intended to share our approach and hopefully get you started in the creation of a catchment passport. If you have any questions or comments please contact us through our LinkedIn page or at info@goodstuffinternational.com

What is a catchment passport methodology?

A Catchment Passport methodology[1] provides a structured, easily accessible and understandable way to collect, structure, condense, publish, share and validate catchment information through stakeholder engagement.

The purpose of a catchment passport is to provide repository of information that can be accessed, commented on and agreed on and related to by all stakeholders. The catchment passport serves as an information foundation for collective action in the catchment concerned. It is a common ground, an joint entry point for all stakeholder. Because it is created based on official, science-based and reliable data, it is factual, not judgemental nor providing any position or interest. Therefore, anyone can relate to it. Also, a catchment passport provides an overview of the stakeholders, their roles and degree of influence.

As a product., the catchment passport provides a shared information base, to create joint understanding and direction amoung stakeholders. The catchment passport aims to stimulate dialogue relationships to identify and trigger joint action towards a common goal for the catchment and its stakeholders. This goal can often somewhat generically be described as 'collaborating together for a sustainable and resilient catchment for people, nature and the economy'.

A catchment passport can take the form of an offline catchment passport in a powerpoint or another document, or as an online as a catchment information repository. The catchment passport is always supported by a catchment geographic information system that provides the geographic information on the catchment in form of maps, shape and raster files.

Catchment geographic information system

The catchment geographic information in the form of maps, shape and raster files can be collected, organised and stored using the opensource geographic information system, QGIS (qgis.org). QGIS also provides good tools produce the maps to be used in the powerpoint. The QGIS project can also be exported to a website using the QGIS2HTML plugin so that users can browse maps online. For any catchment collective action project it is key to have a geographic information system that outlines all maps that are available. Key maps to include are: catchment delineation, river system, aquifer system, reservoirs, boreholes, land use map, background topographic map, water risk layers (https://riskfilter.org or https://www.wri.org/applications/aqueduct/water-risk-atlas/#/?advanced=false&basemap=hydro&indicator=w_awr_def_tot_cat&lat=30&lng=-80&mapMode=view&month=1&opacity=0.5&ponderation=DEF&predefined=false&

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[1] The catchment passport methodology is aligned with the globally leading water stewardship approaches and standards. And if done in an openly accesible way, also around requirements on stakeholder engagement, transparency and collective action.

projection=absolute&scenario=optimistic&scope=baseline&threshold&timeScale=annual&year=baseline&zoom=3), major ecosystems, protected areas (https://www.protectedplanet.net/en), water quality maps (nitrogen loads), climatic maps, climate change scenario maps, desertification.

Catchment Passport outline

A catchment passport can have the following generic outline, content items can be removed or added if required.

- **Basin geography**

  - Catchment, river network, aquifers, water sources map, land use

  - Topography

  - Climatic conditions

  - Climate change projections

- **Status of water resources**

  - **Water quantity**

    - Water availability and groundwater situation

    - Water demands and the agricultural sector

    - Environmental Flow Requirement data

    - Catchment water balance

- **Water Quality**

  - Key aspects on water pollution and water quality

- **State of ecosystems**

- **Governance**

  - Existing water-related initiatives, projects, associations

- **Stakeholders**

- **Social aspects**

  - WASH

- **Challenges and opportunities**

- **References**

Information is presented in accessible and edible form

Key in the Catchment Passport is that technical information is presented in a best as possible edible form and accessible. To get a feeling for what type of language can be used, please take a look at the online catchment passport in the repository of the WRAP Collective Action project in Southern Spain: https://storymaps.arcgis.com/stories/86c524942cbc4c03b09a78dc4bc5e96f

Just start with the information available

Most likely you have already information available on the catchment, analyse the information and related it to the headings in the outline above. Then try to extract findings from the information and state them in a couple of lines (see example below)

For example, under the heading 'water quantity' data on water risk can be included. There is a global dataset called the WWF Water riskfilter (riskfilter.org). Go to the website and navigate to the the map section and search your location to get a sense for the level of basin physical risk. In the map you see a color for your location, let us assume it is orange. This information can be included in the passport by putting "According to the Water Risk Filter the basin risk in mycatchment is medium high (riskfilter.org, accessed 10 April 2025)." You can take a screenshot of the map to illustrate the basin risk situation in and around the catchment. Of course this is global data, best is to include more detailed information on water quantity (availability, use, scarcity and drought) from the local authorative sources like water management institutions to provide a more local and detailed perspective.

In this way, you can go through each of the headings above and if information is available, create and insert brief statements with references and images that provide insight in the situation the basin for the topic concerned.

Often in the process of producing the catchment passport, stakeholders will be contacted that could help identify additional information required to fill gaps and enrich the information. In this way the catchment passport process is a way to engage stakeholders at a more individual level and get a level of involvement started.

After you have gone through all the headings you can try to deduct what might be the main challenges in the catchment and also what would the kind of opportunities you did identify in the process of information collection.

At some point, a lot of information is already put in the catchment passport and maybe some information is missing, but the passport is sort of available in a draft form ending with a list of challenges in the catchment opportunities for action.

Engaging stakeholders with the catchment passport

An key step is the sharing of the catchment passport with stakholders that you identified in the stakeholder section in the catchment process.

The objective of sharing the catchment passport is multifold and is the next step in the process to create collection action in the catchment:

1. to validate the information that is presented in the catchment passport

2. to close potential gaps, questions or correct information in the catchment passport

3. to sound out the main challenges and opportunities and see if a components of a joint vison or goal for the catchment can be identified

4. to identify some small next steps in the form of potential joint actions

The sharing of the catchment passport with stakeholders often occurs in a multistakeholder workshop. The design and organisation of this workshop needs careful consideration, time and potentially some financial resources. The topic of organising the multistakeholder workshop will be addressed at a later stage.