

RIVER Ranger Klang River / 巴生河的水上寻护人员

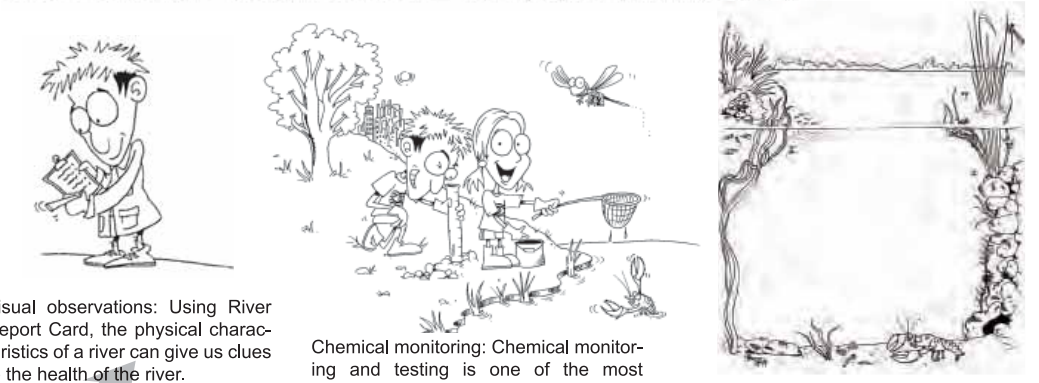
Conserving our precious water resource is possible. We can begin by taking ownership of our rivers – being the eyes and ears for our rivers and taking necessary measurements to minimise our negative impact. Through River Ranger Sg Klang, nine communities (3 per zone) in Klang River Basin are undertaking local actions to minimise negative impacts and monitor Klang River. Here are the lists of ideas on what we could do:

-保护珍贵的水资源是可能的。我们可以利用河流的所有权一把注意力集中在河流上，采取必要的监测手段尽可能的降低人类对环境的消极影响。巴生河的水上寻护人员，分为 9 个小组，每个区域 3 组，主要职责就是在采取符合当地实情的手段，降低对环境的不良影响，并监测巴生河。以下是一些我们也能参与的行动：

a) River Auditing / 河流审核

There are 3 methods you could do that are most commonly used to check the condition of the river water – visual/physical observations, chemical monitoring and biological monitoring.

共有 3 种方法供你选择，以便对河流有大致的评定—视觉/物理观察，化学监测以及生物监测。



Visual observations: Using River Report Card, the physical characteristics of a river can give us clues to the health of the river.

视觉观察：使用河流报告卡，河流的物理特性能够为我们提供一条健康河流的线索。

b) Polluter monitoring / 污染者监测

Acts of pollution are happening everywhere. As a citizen, we have the right to report any acts of pollution. Here are some steps that will help you monitor any illegal pollution from people or industries and report such acts. (Note: Please be careful and try to be discreet. Ensure your safety first). Take note of the registration number of the vehicle or which company it is from. Take note of the day, date, time and site where the act occurred. If you have a camera or camera phone with you, take as many pictures as you can of the act happening, or the effects. Make a description of the site, and describe the impacts of the pollution and any other information that would be useful to the authorities. Report everything you have seen to the DID, DOE, LUAS and local government.

污染行为随处可见。作为一个公民，我们有义务上报各种污染行为。参照以下步骤将有助于监督来自于个人和行业的任何不法污染行为，并且上报相关部门。（备注：请小心谨慎，首先保证个人安全）。可以记录下车辆的注册号或了解公司背景，记录下时间、地点和不良行为。如果你随身携带相机或手机有拍照功能，尽可能的拍下现场的照片。描述现场，和告知污染的影响和任何对相关部门有用的信息。向 DID, DOE, LUAS 和当地的政府报告你目睹的所有情况。



c) River Mapping / 河映射

Through the investigations in River Mapping, we are able to collect information which may identify a problem or issue in their local area. River Mapping makes use of our natural senses, such as sight and smell to identify the physical attributes of the river and its surroundings. The first step is to map out your local area and the location of the river within this area. Once you have done this, you can add in all the different types of land use you see in the area and activities that may affect the river. Next, you should go to the river itself, and record its appearance. What colour is the water? Is there any oily sheen on its surface? Think about what could be causing this and refer to the table on the last page for help. Other things you should note is the type of vegetation found near the river, and how much there is, as well as whether there is any smell coming from the river.

通过河映射调查，我们可以收集到关于引起该区域主要问题原因的资料。通过使用我们自身的感官例如：视觉、嗅觉，去确定河流及其周边的属性。一旦你完成了，你可以在其中加入你所见到的不同类型土地用途和其他活动可能对河流的影响等信息。接下来，去河边记录你的所见所闻：河水的颜色，河流表面是否呈油性光泽？然后思考这些现象的成因，并在最后列表记录，寻求帮助。还有一件事情值得注意：在河流周围发现的植物种类，丰度如何，以及河流是否有异味。

d) Drain Stenciling / 提醒牌

Our drains are meant for rainwater only. What goes in a drain comes out into river. Anything other than pure rainwater is a potential contaminant that degrades our river water quality because all drains lead to rivers. Stenciling drains will educate us about the harmful of our actions (eg: throwing toxic household pesticide into drains) towards our river as well as educate us to Love Our Drains and Rivers.

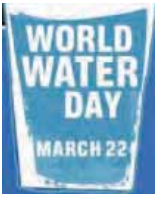


我们的排水系统只适用于雨水。在通过排水管道流入河流之前是过程是如何呢。除了纯净水之外的都是潜在的污染物，将使水质下降。因为所有的排水管道直接通向河流。排水制版将会让我们认识到对河流有害的行为（如乱扔有毒的家用农药到排水管）及教育我们要保护河流和维护排水管道。

e) Local and Global Activities / 当地和全球的活动

One of the key factors that have led to the detrimental state of our rivers is the lack of community participation in river management. By raising the level of awareness and understanding on the issues and problems faced by rivers, the government can stimulate the community to change their behaviour and habits which negatively impact river systems, and help them to develop trust and ownership toward the development and planning of project activities and solutions regarding rivers. Through the community participation component, the government can run on-ground activities and workshops for the public and involve them in decision-making processes for their river basin.

导致河流日趋恶化的重要因素之一是河流管理中社区的参与不足。为了提高公众对河流问题的重视和环保意识，政府号召社区公民改变不良的习惯和行为，并树立民众对政府治理河流问题的信心和主人翁意识，主动地发起和参与保护活动。政府组织一些落地的活动和演讲，促进社区的参与，并使民众参与到流域问题的决策过程中。



Klang River

WHERE THERE IS WATER THERE IS LIFE!! / 水是生命之源

Fresh water is crucially important for us to live and our primary sources of fresh water are our rivers (rivers provide 97% of our water supply). We have been using water from rivers extensively for our domestic needs, agriculture, industry, transportation, recreational and religion purpose. Despite our dependency on our rivers, we (the communities) have not shown enough interest in protecting our water resource. We literally have been dumping all kinds of waste/pollution into our rivers, assuming the waste/pollution that we threw will be taken care by our river. In the past, our rivers are able to cope as the amount of pollution discharged was relatively in small amount or it is in natural organic based content; however, with the present fast development and increasing population, our rivers are not able to do so. Therefore, our river waters are currently being extensively treated before they can be use for our consumption.

水是生命之源，最初一切生命需要的淡水都来自河流（河流为生命提供了将近 97%的水资源）。如今，我们已经把河流水资源广泛运用于人民生产生活所需：农业、工业、航运业、娱乐以及某些宗教目的。尽管我们如此依赖于河流，但是很多人依然对河流、水资源保护漠不关心。我们曾认为河流自净化能够去除一切污染，因此不断的把各种污染物、废弃物排放进去。以前，河流自净化功能的确可以去除外界排放的污染物和自然产生的一些有机物；但是随着人类社会的飞速发展，污染也随即加剧，河流自净功能已经失效。因此，现如今我们的饮用水资源都是河水经过多道工序净化处理过，才能被使用的。



WHAT CAN WE DO? / 我们该如何应对

We have been relying on other parties to take care of our rivers when the fact is we own the rivers and we have the power to change the way rivers are managed. Participation from collective multi-stakeholder (communities, government, private sector etc.) to minimise and control pollution as well as monitoring rivers will eventually conserve our water resource and be available for present and future use.

我们一直依赖于其他机构来保护河流，但实际上，河流是属于每个人的，我们有权去改变对河流的管理方式。多方利益相关者（政府、社区、民间组织等）多方参与，通过监测等手段降低和控制水污染，最终会使水资源得到可持续利用。

- Get the Basic Information Right!! / -掌握正确的基本知识

Before we could participate in any conservation and monitoring activities that relates to rivers; we need to know the fundamental knowledge of a) river and its basin, b) quality of our rivers and c) our impacts on river ecosystems.

在加入任何有关河流保护和监测活动前，我需要了解一些基本常识，例如：a)河流及其流域 b)河流水质状况 c)人类活动对河流生态系统的影响。



a) River and Its Basin / 河流及其流域

A river is a natural waterway on the Earth's surface, which channels freshwater from the mountains to the sea. A river basin is the entire area drained by a river including its tributaries. It is sometimes refer as catchments, drainage basins or watershed. That means all water including drain water in the river basin area drains into river and its tributaries. Therefore, the flow of water sets the boundaries of a river basin. River basins catch precipitation and accumulate water, which flows across or under the landscape. They come in, many different shapes and sizes. River basins can be hilly, mountainous, or nearly flat and can be compromised of many land uses including forest, farms, towns and cities. The area we live in, no matter where it is, is part of a river basin. Therefore, everything that we do has an impact on our rivers and its environment.

河流即将在地表天然形成的水路，水源多来自高山，最终汇入海洋。流域是完整的河流区域包括其支流。流域也经常被称为集水区、排水流域或者分水岭。意味着排放的废水等污染物也会随着河流，分散到下游以及支流去。因此，流水将流域区域化，流水经过或穿越景观形成流域容纳并贮存水源。流域的外形和大小各不相同，可以是多丘陵的、山脉的或者有森林、农田、村庄、城镇的平原。我们生活的地方，无论在哪，其实都是流域的一部分。因此，我们所做的一切都会对我们的河流和其环境造成影响。



b) Quality of our rivers / 河流的水质

A river need to have 3 elements in order to recognize it is in good condition. The elements are 要鉴别一条河流的各项生态指标是否合格，有以下三个标准：

i) Clean water / 清洁的水质

- There should not be any manure, liquid waste / waste water or other pollution discharge or dump into a river. It has to be taken care at treatment plant.

-水体中不应有任何化肥、废液、污水或其他一些污染物的排放，而且必须进行集中处理。

ii) Sufficient water / 充足的水源

- There must be sufficient amount of water for all (i.e. humans, flora and fauna). Human intervention can cause insufficient amount of water, for instance- pumping water out of the water courses.

-该河流能否为流域内的动植物和人提供充足的水源。但是人类活动例如从河流中抽水等可能影响到水源供应。

ii) Correct physical properties / 恰当的物理性质

- Many of our rivers become too wide and shallow. Our river banks, bends and loops have been straightened up; gravels and stones have been dug out. Our rivers have become uniformly straight and have cause serious environmental problems.

-很多河流逐渐变宽变浅。迂回的河道逐渐被人工改造成通顺的，河底的石头也被挖了出来。河道一致变成了笔直的，从而也引发了一系列的环境问题。

c) Our impacts on river ecosystems / 我们对河流生态环境的影响

We all live in a river basin. Therefore, everything we do will somehow affect the land and waterways. When a piece of rubbish gets blown away or washed away, it will get into our drains and into our rivers. Such pollution will directly or indirectly affect us and our lives, as well as all the other living things in the environment.

我们都生活在各个流域周边，因此，我们的任何举动，或多或少都会对自然环境起到影响。当一片垃圾北风吹起或顺水飘走，很有可能就会污染我们的水源。诸如此类的污染会直接或简介的影响人类和我们的生活，尤其会影响其他同样生活在这个环境的生物。

RIVERS _ become smelly and unsightly from rotting rubbish and toxic liquid waste.

河流——因为废弃物、

污染物的排放变得刺鼻和浑浊



HUMAN_Polluted river water used to irrigate our food; quality of life reduced due to unhealthy conditions caused by poor river management; increased risk of water-related diseases; toxic contamination of our water supply.

人类——污染了用于灌溉的河流；

不妥的管理政导致一系列不健康的生活条件

由水传播的疾病风，随持续增长；有毒污染物污染了食水供应。



WATER_ supply becomes polluted; interrupted water supply and shortages due to water treatment shutdowns caused by pollution; more frequent algal blooms making water unsafe for all living things; decline of freshwater available for consumption.



水源——水源遭到污染；由于在污水处理设施关闭时期的水污染，造成供水短缺；越来越频繁的蓝藻爆发致使动植物的生命之水不在安全；愈演愈烈的供水的短缺局势。

BIODIVERSITY_ Kills plants and animals living around and within the river; loss of species diversity; invasion and domination of alien, tolerant species



生态多样性——导致在水边及水中生活的生物的死亡；生物多样性的较少；外来物种的入侵。

Facts Regarding Our Klang River / 巴生河信息

Klang River and Its Basin

- Originates from Ulu Gombak Forest Reserved.
- 4th biggest river basin in Malaysia.
- Length is about 120 km.
- Joined by 13 major tributaries.
- Catchment area = 1,288 square kilometers (km2).
- Encompassing of Federal Territory of Kuala Lumpur and Selangor (Shah Alam, Petaling Jaya, Klang, Subang Jaya and Ampang Jaya).

- 巴生河及其流域
- 起源于 Ulu Gombak 森林保护区
- 马来西亚的第四大河流域
- 长越 120 公里
- 有 13 个支流
- 流域面积为 1,288 km2
- 流经吉隆坡、雪兰莪州（莎阿南、八打灵再也、巴生、疏邦再也、安邦再也）



b)

Source of Pollution / 污染源

- Solid waste pollution.
- Direct discharge of agri /aquaculture, commercial and industry effluents, and direct discharge of sewage from un-maintained sewerage plant as well as individual septic tank.
- Discharge of sediments particularly from land under construction in urbanizing area.
- Houses, factories and building built next to the river reserve have caused reduction of natural land and riparian vegetation.
- Sand mining and quarry activities.

- 固体废物污染
- 有农业、水产业、工业废水直接排入，及未维护污水站和个人化粪池的污水进入沉淀物，尤其是城市施工地点的废物进入
- 临近河流保护区住宅、工厂和大楼的建设，导致了自然区域和河岸植被的减少
- 开采砂石行为

c)

Impact / 影响

- Increase of flood.
- Degraded water quality.
- Degrade the surrounding environment.
- Shortage of clean water.
- Sedimentation at river bank.
- Soil and river bank erosion.
- Encroachment of river bank reserve.

- 洪水增多
- 水质下降
- 周围环境恶化
- 洁净水短缺
- 河岸沉淀
- 河岸侵蚀
- 河岸区域被占用

For more information please contact us at:

Global Environment Centre, 2nd Floor, Wisma Hing, No.78, Jalan SS2/72, 47300 Petaling Jaya, Selangor D.E., Malaysia
t: +60 3 7957 2007 f: +60 3 7957 7003
w: www.gecnet.info , www.riverranger.my

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