

# Policy Brief - Kenya

## Water Productivity in Kenya

The policy brief reflects on insights obtained from the review of Kenya's water and agricultural policies and dialogue with relevant stakeholders to raise awareness and jointly explore the concept of water productivity in its broader sense in Kenya.

### Outcomes of the policy review<sup>1</sup>

Kenya is considered a water-scarce country with the current renewable freshwater of about 650m<sup>3</sup> per capita per year. However, water availability in absolute terms is higher than the water demand, indicating the potential for increasing irrigated agriculture through area expansion. Currently, only 3% of cultivated land is irrigated, covering 222,240 ha in 2018. Climate change is also expected to increase water availability (higher total volumes of rainfall but received erratically). Enabled by water availability, Kenyan policies show a strong official commitment to expanding irrigated agriculture for increased food production, aspiring to achieve food security. To promote this area expansion official policies in Kenya have set targets towards increasing the irrigated area to 1.2 million ha by 2030. Kenya Vision 2030 aspires to achieve this target by creating new irrigation schemes and investing in water capture and storage.

Kenya's institutional landscape is characterized by multiple governing bodies and departments around water management, usually with different strategies and policies. This results in governing bodies working in silos, limiting the possibilities for a comprehensive policy formulation that can be implemented on the ground.

Official policies do not explicitly discuss the concept of water productivity. Different organizations related to agricultural water management might share the mandate to increase resource efficiency and productivity, but there is a limited explicit focus on water productivity understood as biophysical water productivity or benefits to be made from water use in terms of economic value, food self-sufficiency or security, employment or environmental sustainability. To raise awareness about these aspects and explore whether water productivity is relevant for the case of Kenya, the policy dialogue was hosted in Nairobi.

### Policy dialogues

The dialogue was held in Nairobi on the 16<sup>th</sup> of November 2022 and 13 participants attended the dialogue (1 from the Ministry of Agriculture, 4 from the Ministry of water, sanitation and irrigation (department of Irrigation), 1 from the Ministry of Education, 2 from research organizations, 3 from development agencies and 1 policy expert (independent consultant). After a round of introductions, a short presentation of the integrated assessment framework (see Hellegers and Davidson (2021)<sup>2</sup> was given to set the basis for the discussions and understand water productivity as water contributing to many different policies and developmental objectives, other than merely biophysical water productivity at the field or scheme level; i.e. more crop per drop. Following, the findings of the policy review of Kenya were presented and discussed with participants and the team received feedback for the finalization of the report.

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<sup>1</sup> Full report available at WaterPIP website: [https://waterpip.un-ihe.org/sites/waterpip.un-ihe.org/files/policy\\_review\\_kenya\\_2022\\_final.pdf](https://waterpip.un-ihe.org/sites/waterpip.un-ihe.org/files/policy_review_kenya_2022_final.pdf)

<sup>2</sup> Hellegers, P., & Davidson, B. (2021). Resolving the problems of commensurability in valuing water. *Water International*, 46(5), 637-651.

The discussions were focused on the local level, the involvement of farmers, and the incorporation of research and technology for local-level improvements in water management and efficiency. Participants reflected on the use of water productivity in its broader sense for the livestock sector as it is a major cultural component of Kenya and a sector with economic benefits throughout the value chain (socio-economic benefits for food security, economic water productivity, and environmental sustainability).

The absence of a common and comprehensive policy and implementation strategy for agricultural water management was extensively discussed. An indication of this is the county-level strategies. During the dialogues, it was mentioned that counties are expected to domesticate the national policies. Instead, counties are at times developing their own county-level policies related to water and climate change. This leads to a gap in which policy is being implemented. This sometimes comes due to specific requirements to have access to funding like the Financing Locally Led Climate. Action (FLLoCA) Program with funding from World Bank.

Another point of discussion regarded research on biophysical water productivity. It was agreed that research on biophysical water productivity should inform the implementing strategies and focus on capacity building both towards the scheme managers and policy implementers. The Ministry of Water, Sanitation and Irrigation (MoWSI) as well as the National Irrigation Authority (NIA), under the Ministry of Agriculture have shown interest in making water productivity an impact indicator, seeing opportunities in the use of WaPOR towards this end.

After the short break, participants were divided into three breakout groups and were asked to assess the focus of the current policies in Kenya against the seven indicators of the integrated assessment framework and then report back to the plenary their discussions and scorings (Figure 1). All participant groups agreed that the focus on biophysical water productivity is limited in current policies. Participants discussed that biophysical water productivity is irrelevant from a farmer's perspective as their primary concern is increasing production. At the policy level, opportunities for biophysical water productivity were seen in using biophysical water productivity as a tool to make a concrete and comprehensive strategy for implementing already existing policies. It was also discussed that research on biophysical water productivity should inform the implementing strategies and focus on capacity building both towards the scheme managers and policy implementers.

Participants' groups scored relatively high on all the other indicators of the framework, as policies make explicit notes of these objectives. However, all participants agreed that what is happening on the ground is different than what the policies project. This became clear with multiple examples, one being that policies want to promote the establishment of home gardens for food self-sufficiency but in reality, no one has a home garden. A policy to stimulate planting trees similarly did not pick up. As such, food self-sufficiency scored high, even if in reality the country is dependent on food imports. One group used two different scorings to capture the difference between the official policy focus and the situation on the ground. The highest differences were perceived to be in environmental sustainability and food security. This indicates the perceived gaps in meeting the policy objectives and points toward implementation needs.

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Figure 1: Integrated assessment framework – results of group exercise

## Conclusions

The main conclusions from the policy review and dialogues are the following:

- Kenya's institutional landscape for agricultural water management is complicated with different policies that are lacking in implementation. At times, policies are conflicting and overlapping.
- Expansion to new irrigation schemes is currently taking place by investing in water storage and rainwater harvesting.
- Biophysical water productivity is not assessed in current policies.
- Biophysical water productivity, meaning how much water is used to grow crops, at this point as an indicator adds little value when assessing farm/field or scheme level. At the ministerial level (both agriculture and water) it should however be considered as the key indicator of overall performance, by means of Including water productivity in the research and development cluster within the ministries to inform:
  - development of strategies - implementation of existing policies;
  - future crop and land (intensification/expansion) development; and
  - water resources management authorities/committees (agriculture and water ministries)
- Livestock is an important aspect of Kenyan industry and culture that should be considered in water and agricultural policies.

Kenya has good policies and strategies in place but there is low uptake and adoption at the local level.

## Recommendations

The main recommendations and points for further analysis are the following:

- Efforts should be made to the implementation of policies (rather than the creation of new policies) and intersectoral communication and alignment.
- Research and capacity building for appropriate use of the biophysical water productivity in implementation strategy is needed.
- Policy and research need to be co-joined to help in the actualization of the policies.
- Instead of developing new policies, coming up with comprehensive strategies for actualizing the policy can be a better alternative.
- There is a need for inter-sectoral working together and decluttering of policies and overlapping regulations (at least in practice); counties to be guided by consistent policy frameworks for agricultural water management and a clear mandate to strategize and regulate
- There is a need for country-wide agreed and accepted water and agriculture monitoring method that includes: (non)consumptive water use (per season/month/year); rainfall; biomass (which can be devolved at the county to national level). Using the FAO's WaPOR portal could offer [this opportunity for monitoring](#). This to inform:
  - performance of crops and cropland to improve and learn (performance identification – performance diagnosis – attainable solutions)
  - water budgets at irrigation scheme/ (sub)catchments and river basin levels
  - regulatory authorities on regulated and unregulated water abstractions (surface/groundwater)
  - rangeland management
- Addition of innovation/technology in water productivity will highly be appreciated as emphasized by the officers from the Ministry of Water, Sanitation and Irrigation.

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