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Drinking Water Policy, Water Rights and Allocation Practice in Rural Northern Ghana

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Abstract

Rural drinking water policy in Ghana is based on the 'communal management' approach. The formal membership in water user communities has been introduced in the end 1990s during the implementation of a new national water policy. Members hold a monopoly on ownership, access and power over their water supply facility. Local water users had to balance contradictions and conceptual differences between their former water right regime and innovative institutions. Despite a new conceptual design, structural shifts in water user group pattern and local diversification of water rights and rules, household water allocation practice does not show major changes but continues to depend heavily on non-institutional factors.

1. Background and Research Questions

Present drinking water policies assume that rural drinking water supply facilities, such as improved hand dug wells or hand pump fitted boreholes can and should be best managed by local water user communities. It is expected that so-called 'communal management' will guarantee the technical sustainability of the supply facilities as well as more equal access to water. Ghana – as many other African countries - has adopted and implemented this approach countrywide in its National Community Water and Sanitation Program (NCWSP) from 1998. After a long period of centralized management by the state owned Ghana Water and Sewage Company (today Ghana Water Company Limited), which could not ensure long-term sustainability of the rural water supply facilities, their management was handed over to the local water users. This transfer in management rights was accompanied by the implementation of crafted institutions, which the local water user groups were supposed to implement and translate into action, irrespective of local management practices of household water, which have always existed and co-existed with the centralized management.

As a result, some concepts, which the NCWSP policy suggests, contradict the former local water right regime as well as local perceptions and conditions. Among those concepts are (1) formal water user communities, (2) water tariffs and (2) rights to exclude others from access. Local water user groups were challenged to balance those contradictions and deal with project legislation and borehole management guidelines derived from water policy, as well as with socio-cultural norms, ecological circumstances and practical needs, which all embody divergent management priorities. This paper will tackle the following questions:

- What empirical impact has the international drinking water approach on the local management of household water?
- What institutional and conceptual changes have emerged in comparison with the former local water right regime?

- And what are the consequences for the access to household water and local water allocation practice?

2. Methodology

The qualitative and quantitative data was collected during a nine-month field stay in a Ghanaian rural settlement close to the border to Burkina Fasoⁱ. The methodology included a survey among all village water committees and local water management bodiesⁱⁱ, a household survey, interviews with experts and water users, participant observation, as well as historical and project document review.

3. Results

3.1. Bounded Water User Communities

The NCWSP implemented in rural Ghana has provoked major structural changes in the local pattern of water user groups and water rights. Usually, households frequent a number of water sources for their household supply. Water is not only used for primary purposes (drinking, cooking, washing) but also for small productive uses (e.g. livestock watering, fruit tree irrigation, craft, construction). Household water sources may include high quality water from hand pumps but also water sources of lower quality, such as reservoirs or streams. Households take preferences for their fetching pattern, which were shaped in this particular research site by the distance to various water sources, the perception of water quality, the composition of the household, as well as the kind livestock owned by the household. Moreover, households tend to maintain use rights in several water user groups. This strategy secures the household water supply when water sources fail or become seasonally unavailable. It used to be the distance to the source and household's preferences, which characterized water user groups before the introduction of 'communal management'. Use rights were public, even when the right to own the facility was held by an individual, as is the case with so-called *buligadaama* (well owners) in the research site, who also held a number of decision-making rights over the facility. If no owner was defined for a water source, local councils of elders used to hold the decision-making rights.

NCWSP guidelines request a community contribution of 5% capital cost towards facility construction, the installation of an elected pump committee, regular payments of water tariffs, and transparent bookkeeping. With its implementation, the membership in water user groups became registered and formalized. The provider delivers the water supply facility to the new water user group, which constitutes a formal water user community (e.g. pump community, improved hand-dug-well community). This community holds joined rights to own the hand pump ('communal ownership'). The ownership of already existing facilities has been directly transferred from the state to the former water user group. According to this policy, the pump community alone is in charge for all cost of operation and maintenance ('Community Ownership and Maintenance, COM approach'). To avoid free-riding by outsiders, the boundaries of pump communities are strictly drawn and membership status clearly defined. To avoid free-riding from members, regular payments have to be made to maintain use rights. In practice, membership of a pump community can be gained by the payment of either the initial community contribution or a later entrance fee. The entrance fee was not foreseen in management guidelines but is an innovative institution, which was created at the local level to cope with inabilities to contribute.ⁱⁱⁱ

ⁱ The research was conducted as a PhD research project on "Household Water Management, Water Rights and Local Change in Northern Ghana" within the GLOWA-Volta research project, which is concerned with the implications of climate change and the hydrological cycle in the West African Volta River Basin. www.glowa-volta.de

ⁱⁱ The 65 questions were addressed and discussed with 25 pump committees (2 of them managing two hand pumps), 2 improved hand dug well committees, 2 reservoir committees, and several well owners. Committees of newly constituted pump communities, which were still in the project implementation phase were addressed with a different questionnaire.

ⁱⁱⁱ The majority of local pump communities and improved hand-dug- well communities displayed such a regulation.

Entrance fees were higher than the initial contribution penalizing compound houses^{iv}, which had not been able to afford paying during the project implementation period. Only after the payment of the entrance fee, water rights (right to own, use rights, decision-making rights) are transferred to the whole compound house. Official statistics on rural water provision may give a misleading impression because the number of facilities is not equally shared among the number of users. This is partly due to the dispersed settlement pattern in the field site but may also have institutional causes. In one pump community, 65 compound houses shared one hand pump. Another pump community in the same village section had only 8 members. In this particular case, it was due to the restrictive policy of the smaller pump community, which scared potential new members away with very high entrance fees.

Another practical implication of NCWSP policy is that households may not always translate their preferences for water sources into practice. A compound house belongs to a particular pump community and holds no use right in any other – even if the other hand pump is closer, easier to reach in rainy season, less crowded or in more functional state. Gaining membership status in an additional pump community is linked to high expenses. Only a slight minority of compound houses followed a strategy of double membership. But almost all compound houses were members of a reservoir community additional to their membership in a pump community, if such a facility was situated in their neighborhood.

The design for bounded water user communities take the interest and water needs of surrounding settlers into consideration but not those of other water users. In the field site, villagers farmed fields not only around their compound house but also in other village sections. Livestock roams freely all over the village. Some pumps were situated at the roadside, where many people passed by or at the market, where traders were in need of water. These water users were ignored or neglected by management guidelines. Villagers balanced the contradiction by the creation of additional, innovative hierarchy of water users and categories of use rights. Non-members of pump communities may obtain use rights, which limit the amount of water, the water use and the period of withdrawal. Illegitimate access was rarely tolerated but happened. Whenever not restricted by the exclusiveness of pump communities, the pattern of multiple household water sources was maintained. When facilities broke down, extraordinary arrangements had to be negotiated between pump communities, which took the form of temporally limited use rights linked to some conditions, which additional user have to fulfill (e.g. fees, fetching times).

3.2. Water Tariffs and the Right to Exclude Others

The regular payment of water tariffs for rural water supply was extended to all rural regions of the country. This introduction of water tariffs was not meant to introduce water as commodity but to provide means to accumulate local funds for spare parts and repair. This is so because experience had shown that many local user groups had difficulties to make ad hoc contributions when a break down occurred. Pump communities were encouraged by borehole management guidelines to sanction non-payment with the exclusion of such free-riders. Thus, it was intended to link use rights to regular payments. Similarly, payments were locally conceptualized as maintenance fees not as water tariffs and called 'borehole fees'. Water remained a public good in character. Borehole fees are low and in most pump communities paid as yearly lump sum by compound houses, irrespective of its number of households or inhabitants. This implies unequal costs among compound houses of the same pump community.

At the local level, there is a strong cultural norm of non-exclusion, which prohibits the exclusion of people from access to water for primary uses (including livestock watering). This

^{iv} A compound house is a local house, which comprises one or a number up to eight households. Each household has own buildings, yard and cooking place. Stores and the central kraal are shared. The households are related over patrilineal descent. The eldest man acts as the compound head.

norm got challenged through the new policy. Not only culturally but also practically, the exclusion from access proved to be unfeasible. Payments are usually made in the beginning of the year as suggested by management guidelines. It is the period of the year, when most households do not have items to sell for cash. At the same time, almost all water sources apart from the hand pumps are not available. Single source situations are created by seasonal water shortage and the exclusiveness of other pump communities. The single source situation diminishes practical sanction capabilities even if exclusion is an institutional part of the management system.^v Additional institutions such as rules for payment by installment, procedures of negotiation and issuing cautions, as well as minimal access were locally created to avert exclusion of users. Use rights got linked to ownership and not to the payment of water tariffs. Watering rights remained public.

3.3. Water Allocation Practice

Local water law contributes to a right-based allocation of household water. Water rights in pump communities stress the equity of member compounds in ownership, access and power – ignoring the social, economic, gender or age status of individuals living within the households of a member compound. The bottleneck for the receipt of such water rights is the membership in a pump community. Although water rights shape fetching pattern and resource allocation to some extent (e.g. they regulate which compound fetches and may fetch from which hand pump), both practices were influenced strongly by

- (a) Decision-making of individuals on household level, specific household water needs (quality and quantity) and attempts to smooth labor routine. Preferences had an impact on the water quantity, the water source and the fetching times and individual behavior at the pump site.
- (b) Structural/ institutional factors, such as the combination of household members and their particular property in livestock. They resulted in specific water needs and in specific availability of labor force for water fetching. Gendered division of labor and socio-cultural organization and norms manifested e.g. in the main responsibility of young women for water fetching.
- (c) Non-institutional, non-decision-making factors, such as individual physical weakness and unfortunate combination of household members.

Most of the individuals and households received the quantity and quality of water they needed and desired because the resource as such was not limited. Constraints in allocation occurred due to a high number of users and rush hours at the hand pump but did not affect allocated amounts but it has an impact on fetching times (which eventually disturbed labor routine smoothing). Insufficient response to water needs was caused by a combination of factors, which always included category (c), which eludes institutional regulation.

4. Conclusion

Management guidelines derived from NCWSP policy had an impact on local institutions of household water management. They were not translated 1:1 into local water law but provided one set of institutions among others (former water right regime, socio-cultural norms and forms of organization), which served as repertoire for institution building. Local water law is an outcome of institutional bricolage and a legal response to specific socio-political, economic and ecological conditions in the field site. Strikingly, the rules and regulations in all pump communities varied to some degree but embodied very similar principles and ideas. Local water law was but one factor contributing to water allocation practice.

^v In 14 of 25 pump communities, the committee stated that non-payment of borehole fees would result in exclusion. Most of them did not face such situation yet or reacted otherwise in practice.

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