

Haapal, J. and White, P. 2018. Development through *bricoleurs*: Portraying local personnel's role in implementation of water resources development in rural Nepal. Water Alternatives 11(3): 979-998



Development through *Bricoleurs*: Portraying Local Personnel's Role in Implementation of Water Resources Development in Rural Nepal

Juho Haapala

Water and Development Research Group, Aalto University, Aalto, Finland; juho.haapala@aalto.fi

Pamela White

Development Studies, University of Helsinki, Finland; and Development Consulting, FCG International Ltd.; pamela.white@fcg.fi

ABSTRACT: This article considers the little studied role of local implementation staff and their institutional operational environment at the grassroots of a rural development intervention in Nepal. The study describes the challenges the implementing staff encounters in relation to the steering policies, project modalities, local communities, partners in government administration, and their personal motivations. It observes the ways in which the implementing individuals must collaborate with their partners and facilitate the planned changes in local institutions and individual behaviours. The findings indicate that much of the actual implementation process at the grassroots is determined by informal, improvised, and fuzzy institutional surroundings, quite different to designed or regulated governance environs. The ability to operate in these less-regulated environs determines many of the implementation outcomes at the grassroots. Researchers, managers and decision-makers would benefit from incorporating institutional bricolage to the analyses of development interventions.

KEYWORDS: Institutional bricolage, implementation, adaptive management, rural development, Nepal

INTRODUCTION

International development collaboration is a process in which development targets are collectively set by collaborating nations, resources allocated jointly, and interventionist actions taken to change the current status and achieve common goals, with varying degrees of community-level involvement. Such activities employ various instruments to implement development goals, such as sectoral, programmatic, and project approaches. The original, standard device for implementation is the project formula (Rondinelli, 2013: 5; De Haan, 2009). Even sectoral and programmatic approaches are in the end often implemented locally through a project modality (Sjöblom et al., 2013: 3; Rondinelli, 2013: 6). This makes the project organisation a central tool of development efforts.

Development agencies tend to adopt designs that relate to contemporary development discourses. In the rural development context, the relevant discourses involve community management, participation, and social inclusion (Chambers, 1994; de Haan, 2009; Rusca et al., 2014). Besides this top-down discursive influence, project organisations are typically working locally, within the surrounding sociocultural environment. They are therefore not only regulatory top-down devices of development, but they also express local societal values and goals, and reflect the realities evident in the surrounding society (Cleaver, 2012; Tortajada, 2014). Project operation in reality depends on the fit with the bottom-up values and participation mechanisms (ibid).

At the level of actors and their interactions, the intervention can be described as a transformational process in which the individuals constantly negotiate with multiple variable perspectives and values at multiple levels (e.g. Long, 1997: 2; Hebinck et al., 2001). In the study context, this practically means that the personnel tack between the top-down requirements and the bottom-up social pressures. This leads to considering the role of local interactions among the practitioners and other local stakeholders when embedding the political top-down steering into the local social conditions.

At the institutional level, recent critical literature increasingly understands such socially embedded interactions and institutional processes through the concept of institutional *bricolage* (Cleaver, 2002; 2012; Merrey and Cook, 2012; Cleaver and de Koning, 2015). Institutional *bricolage* describes the ways in which institutions emerge as combinations of socially embedded interactions and structures (Cleaver, 2012; Jones, 2015). In interventionist development contexts, the existing literature on institutional *bricolage* mainly considers local actors and communities (Franks et al., 2013; Gutu et al., 2014; Rusca et al., 2014; Rusca and Schwartz, 2014; Ingram et al., 2015; Haapala et al., 2016), or local natural resources management institutions (Komakech and van der Zaag, 2013; Franks et al., 2013; Gutu et al., 2014; Rusca et al., 2014; Rusca and Schwartz, 2014; Verzijl and Dominguez, 2015; Haapala et al., 2016). With more individual emphasis, Merrey and Cook (2012) have considered researchers as *bricoleurs*. The closest study on local-level practitioners to our knowledge is provided by Funder and Marani (2015), who have studied government officers in Kenya and identified particular strategies that they followed in implementing laws and practices on the ground.

To our knowledge, no research has considered the implementing development practitioners as bricoleurs, or their interactions from an institutional bricolage perspective. This study investigates these viewpoints of the personnel conducting the hands-on implementation works in a development project context. We study the implementing project personnel in large-scale, multi-decadal rural water projects operating in Nepal. The findings of this study demonstrate that the role of the informal interactions and institutional bricolage should be more emphasised in practical development cooperation contexts to better understand and develop further grassroots-level operations.

STUDY CONTEXT

Bilateral water-sector development cooperation in project formula

We consider two interlinked water projects in this study. Their history intertwines as they represent the current state of a nearly three-decade long bilateral water sector cooperation between Nepal and Finland. The cooperation has been implemented through a series of projects focusing on either rural water supply and sanitation, or water resources management. Over the years, the chain of interlinked projects has been operating in a third of the districts of Nepal (for more about the projects and their history, see Sharma, 1999; Saarilehto, 2009; Koponen, 2012; Hänninen, 2014; Gerwel-Jensen et al., 2015).

The two current projects are embedded in local government planning and management systems.¹ In practice, the projects operate through establishing, training, and developing the capacity of local people, communities, and local organisations, such as formally registered water users' committees for community-managed water schemes. The task of the committees is to plan and implement, and then to lead the operation and maintenance of individual water supply schemes at the local level (For more about the modalities and principles of the projects, see Haapala et al., 2016; Haapala and Keskinen, 2018).

¹ In late 2017, elections were held at different levels and there were significant changes in the governance structures. At the time of this study the previous structure of districts and village development committees were still in place.

It is largely Nepali advisors who provide expertise for planning, capacity and approach development, and monitoring in the working localities of the projects. They apply the Nepali guidelines, such as the Water Sector Development Plan and the National Sanitation and Hygiene Master Plan, as well as supporting the implementation of the Right to Water and Sanitation, signed by Nepal in 2010. In addition, the projects apply Gender Equality and Social Inclusion (GESI) policies and processes, advanced at national level, as well as in the Finnish Development Policy (MFAF, 2012; White et al., 2017).

The first of the current projects, Rural Water Supply and Sanitation Project in Western Nepal (RWSSP-WN), focuses on rural water supply and sanitation (www.rwsspwn.org.np). The project has run in 14 districts from 2008, and it is to be finalised in 2019. There are approximately 200 technical and field persons working for the project, including support personnel. The project purpose is to ensure the poorest and excluded households' rights to access safe and sustainable domestic water, good health and hygiene through a decentralised governance system. The projects has served hundreds of thousands of beneficiaries this far.

The second project, Rural Village Water Resources Management Project (RVWRMP), has operated in the Far Western Region of Nepal since 2006, and is to continue until 2022. It carries out rural development via water resources management (www.rvwrmp.org.np). The project has a broader scope than water and sanitation, including agriculture, cooperatives, livelihoods development, renewable energy, irrigation and strong institutional capacity building components (for more research on the project, see Haapala and White, 2015; Haapala et al., 2016; Rautanen, 2016; Doty, 2016; Haapala and Keskinen, 2018). The purpose is to achieve full coverage of water supply and sanitation, and to establish planning and implementation frameworks for all water uses. The project operated in 10 districts, with a beneficiary population of around 700, 000 till now (7/2018). There have been around 300 persons working for the project, the support personnel and local contractors included. In the third phase this has expanded to new local tiers in the same districts.

The project working locations range from the heavily populated Terai plains (RWSSP-WN) to the mid-hills and high mountains of the Himalayas (both projects). RWSSP-WN works with the remaining unserved localities in Western Nepal, whereas RVWRMP focuses on the most remote communities in the country's least-developed region in the Far West. Access to remote villages is often difficult, often involving hours or days of walking on steep mountain slopes to the road head. The remote working regions are characterised by extreme poverty, malnutrition, illiteracy and inadequate education, lack of government administration, scattered settlements, and limited access to markets, electricity, and the internet.

Project staff

The study analyses the implementing staff of the two interlinked rural water projects, considering them as key informants. Both projects have a relatively traditional bilateral project setup, with a team of national and international personnel (dozens of Nepalese and a few international), working with the Nepalese local government structures. There are two categories of personnel: some working as Technical Advisors (TA) either in the central Project Support Unit (PSU) or district support offices, and Support Persons (SPs) working more locally (Table 1).

Table 1. Number of staff working for the projects at the organisational levels at the time of the study.

Project name	Staff number	
RVWRMP	TA: 27	SPs: 225
RWSSP-WN	TA: 16	SPs: 186

TA staff

The TA are senior experts that facilitate and coordinate the project activities, and support the local staff positioned in the local offices and communities, some with a more management and administration focus and others providing technical expertise. There are technical, planning, institutional capacity building, monitoring and evaluation, management information systems, gender and social development, sustainable livelihoods, cooperative and micro finance development, institutional development, and project coordination officers at the PSU.

RWSSP-WN had 16 PSU and district TA, whereas RVWRMP had 27 PSU and district TA staff at the time of the study. Some of the Nepali TA have a long history working for the bilateral Finnish water projects. The majority, though not all, of the TA are outsiders to the local beneficiaries, from other parts of Nepal, and most are men.² This reflects the profile of both government and non-government professionals in Nepal, who are also mainly men from advantaged backgrounds. Most TA are married and their families live outside the project area. Despite positive discrimination during recruitment, it is still difficult to identify suitably qualified and experienced women, or those from ethnic minorities or disadvantaged castes, for these posts. Typically, families would not allow their daughter or wife to travel or live away from home in mixed company for weeks at a time. A closer portrait of one TA is available in Appendix 1.

SP staff

The local facilitator staff (support persons; or SPs) are individuals that work and facilitate actions in the field, in other words in the villages and communities. The SPs constitute the majority of project personnel. They plan, organise, and supervise the implementation activities in the communities, in cooperation with local tiers of the government.

The local staff work on technical issues, such as design and supervision of construction of the water schemes. They also work on social issues with local communities – training, guiding and insisting on application of project modalities. This includes application of strict financial rules to ensure proper procurement of materials, good governance and transparency. It also includes awareness-raising on the importance of sanitation, including access to toilets by people with disabilities, the elderly and menstruating women; and promoting women and members of disadvantaged groups as leaders and technicians. They have roles that reflect their duties in the field, such as Field Coordinator (FC), Health Promoter (HP), Livelihoods Promoter (LP) and Technical Specialist (TS, engineer). The story of one SP staffer is presented in Appendix 1.

There were approximately 225 SP staff in RVWRMP, and 186 in RVSSP-WN. There is a slightly larger proportion of women among the SPs than the TA.³ In addition, the SPs are more commonly originally from the same region or even from the same district. They live and work in the community, generally in a shared house, so they usually do not have their families with them. The SPs tend to be a little younger and to have less experience with the project. This is because the positions are stepping stones to higher-level vacancies.

² At the time of the study, RWSSP-WN TA were 86% men, 14% women, 7% Dalit, 21% Janajati and 71% other castes (Brahmin or Chetri). RVWRMP TA were 100% men, 6% Dalit, 12% Janajati and 82% other caste.

³ In RWSSP-WN, the ratios of the SPs (in May 2017) were 65% men, 35% women, 5% Dalit, 16% Janajati, 6% Disadvantaged Terai Caste, and 73% other castes. In RVWRMP, SPs were 85% men, 15% women, 7% Dalit, 5% Janajati and 88% other castes.

METHODOLOGY

Research approach

Theoretical themes

The approaches to governing institutions are regulatory processes characterised by the aim to intervene in the trajectories of socio-ecological change to create a 'desired state' (e.g. Ostrom, 2005; Lemos and Agrawal, 2006: 29). These regulatory processes are characterised by regulative, normative, and cultural-cognitive elements that define and organise institutional order (Scott, 2008). The study looks at the practice of these elements in the local-level implementation.

Institutional governance perspectives have progressed from hierarchical and sectoral viewpoints to more integrated and dynamic institutional approaches. One such mainstream approach is that of adaptive management and governance, aiming at managing complexity and uncertainty in socioecological systems (e.g. Walker et al., 2004; Folke et al., 2005; Pahl-Wostl, 2007, 2009). Following the trend, ideal development projects are considered as processes with flexible management and design (Mosse, 1998; Ferrero and Zepeda, 2014); and with strong feedback and institutional learning mechanisms (Nooteboom, 2006; Pahl-Wostl, 2009; Pahl-Wostl et al., 2013). This study regards the implementing organisation as this type of dynamic governance institution.

However, much of the actual grassroots implementation occurs in interactions in the local sociocultural environs, outside the designed governance institutions, and less regulated by the aims of governance. This is particularly evident in our study setting of remote rural communities with rather weak governance institutions in place. A related, relevant approach to institutions needs therefore to explore the ways in which social change occurs in practice, instead of focusing on the theory of governing institutions. Many authors now understand such socially embedded environs through the concept of *bricolage* (Cleaver, 2002; 2012; Merrey and Cook, 2012; Cleaver and de Koning, 2015). This approach serves well as a description of the actual implementation environs. Cleaver (2012) describes the concept as:

a process in which people consciously and non-consciously draw on existing social formulae (...) to patch or piece together institutions in response to changing situations. These institutions are ... a dynamic hybrid combining elements of 'modern', 'traditional' and the 'formal' and 'informal'. The institutions produced through bricolage ... are often fussy assemblages of meaningful practices, which overlap and serve multiple purposes (Cleaver, 2012: 45).

Critical institutionalist studies suggest that new ideas and influences become adopted to local, customary institutions through improvised, pieced together practices that may or may not eventually become routines (Cleaver, 2012: 45-46; Komakech and van der Zaag, 2013; Gutu et al., 2014; Rusca et al., 2014; Ingram et al., 2015; Verzijl and Dominguez, 2015; Jones, 2015; Haapala et al., 2016). The adapted or improvised arrangements must be attributed legitimacy, and given authority in a way which makes them socially fit. We reflect the observations in the findings section on the basis of these considerations.

Institutional *bricolage* brings together ideas represented by structural anthropology about human behaviour and institutional structures (e.g. Douglas, 1987; Levi-Strauss, 1962), with a strong emphasis on pragmatic, creative problem-solving within particular social contexts. In reference to Bourdieu's (e.g. 1986) concepts of *habitus*,⁴ institutional *bricolage* highlights that people also creatively and opportunistically draw on social formulae through institutions (Cleaver, 2012: 38-39).

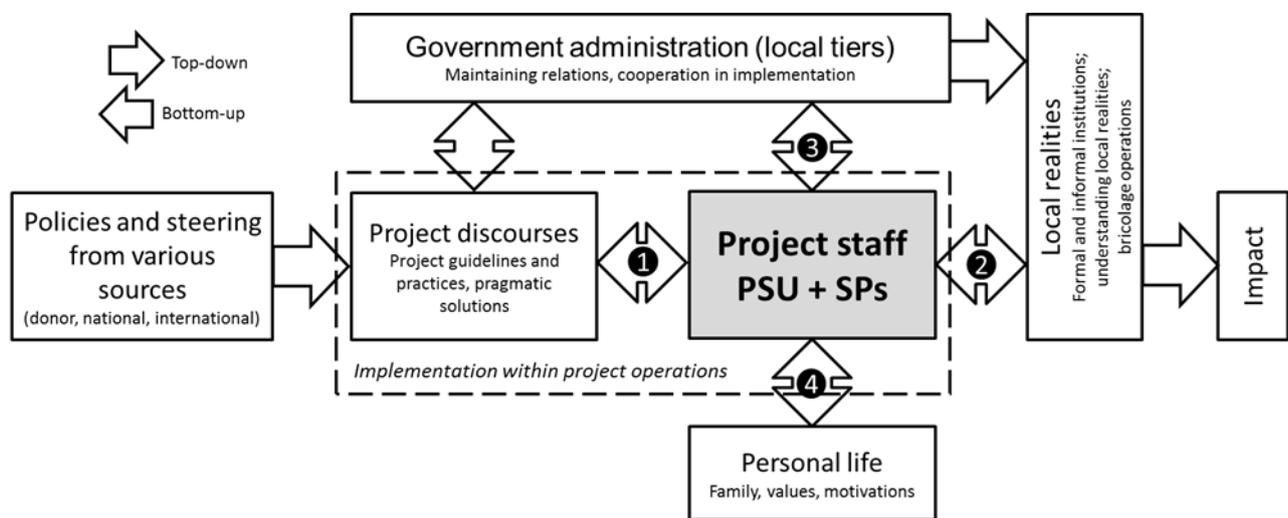
⁴ The concept of *habitus* emphasises that conscious and unconscious habits and routines, strongly embedded in social structures and cultural traditions, shape people's practices.

Many anthropological studies in development convey ideas that are clearly relatives to the bricolage, including ideas related to brokers and translators (Mosse and Lewis, 2006). One actor-oriented approach is particularly close to the themes of the study. That is Normal Long’s actor-oriented approach to development interventions, seeking "ethnographic understanding of the 'social life' of development projects – from conception to realisation – as well as the responses and lived experiences of the variously located and affected social actors" (Long, 2001: 14-15). Long sees the social actors as negotiators of alternative ways of ordering the social context, having much in common with bricoleurs and institutional bricolage. The approach explores how development processes produce a variety of individual meanings through negotiation (Mosse and Lewis, 2006).

Analytical framework

The research approach is characterised by participatory, constructivist research. The orientation is applied to describe the interrelations of the project personnel in the four key institutional domains, introduced below. Institutions are here understood as "the key mechanisms channel societal resources into outcomes. (...) They only exist in relation to people’s interactions with one another" (Cleaver, 2012: 43). Interaction refers to the more contingent, unstructured, molecular interconnections between actors that recreate actor networks and institutions. The relevant institutions and interactions in focus are the ones that surround the implementing project personnel, consisting of (1) the internal project interactions and modalities; (2) interactions with the communities; (3) cooperation with the government; and (4) personal interactions with one’s family, and their own motivations and values. The respective interactions surrounding the implementing staff are illustrated by numbers in Figure 1. We analyse the ways in which the personnel tack back and forth through these domains in their day to day work.

Figure 1. Project from personnel’s viewpoint: Interactions between staff within the project, their own motivations, influences from outside and their relationships with the community.



Linked to the figure above, we consider the findings of this study under the headings of:

1. *Project modalities*: Turning project tools, such as the project document, manuals and guidelines, and the development discourses that steer the sector, into practices and pragmatic solutions in the field;

2. *Community relations*: Supervising work at local level, implementing institutional capacity building, training people, establishing new organisations, constructing water infrastructure, promoting values of the project in action (transparency, participation, human rights, social inclusion, etc), understanding local realities, interacting with formal and informal institutions;
3. *Cooperation with tiers of government*: Maintaining relations with government (and donor) administration, cooperation with government administration in implementation, working from within local government structures;
4. *Personal motivation*: Motivation and values, personal learning.

Methods

The analysis is based on long-term presence in both projects, including involvement in project activities, and meetings both with TA and in the field. The authors have stayed with the projects for at least eight months, enabling participation, comprehensive observations, and numerous informal discussion possibilities. The gained understanding powers the researchers' interpretations given in the findings. The authors were hosted by the project for most of the time, and support was given for accommodation, transportation, and field support and translation.

Data

Particular data collection activities involved semi-structured interviews, along with questionnaires for both the TA and SPs, and more informal discussions with the personnel. We gained a broad impression of the general attitudes and views the staff hold by triangulating the questionnaire, small-group discussions, and informal talks. We also triangulated the perceptions against the actual reality through the field observations and gained experiences.

Questionnaires

Separate data collection processes were conducted with the SPs of RVWRMP (though it was piloted during development with some SPs of RWSSP-WN) and the TA of both projects. The SP questionnaire considered four themes: personal motivations and values; personal capabilities and functions; feasibility and legitimacy of work; and relations to the project, local institutions and communities (see Appendix 2).⁵ Altogether, 43% of the total facilitator staff (around 225 persons) filled in the questionnaire⁶ (Table 2). The questionnaire forms were provided on paper to SPs and filled in by the key informants manually after instructions were given by the researchers. An online survey with SPs could not be conducted due to the poor network connections in the field and districts. The groups were formed for the interviews as per the project working district and the role of the SPs – persons from the same area and with the same role were interviewed together. The response rate is significantly high given that the SPs are normally scattered in the field. To enable group interviews and guide the questionnaire filling, we chose to participate in key events in which most of the SPs in the district were present. The sampling was thus based on the chance of participation from both sides. Table 2 summarises the respective numbers of key informant staff and responses.

⁵ The questionnaire examined the degree of agreement and importance of the given statements, as comprehended by the staff. The results are disaggregated by role, location of work, sex, and experience.

⁶ 97 field-level facilitators filled in the questionnaires and participated in the discussions. These community-level staffers consisted of 57 health promoters (HPs); 17 Field Coordinators (FCs); 16 technical (engineering) staff; and seven Livelihood Promoters (LPs). HP responses represented all 10 RVWRMP working districts, whereas FC/technical staff/LP responses comprise interviews from three project districts. One third of the respondents were women. The interviews were held in September-November, 2016.

Table 2. Number of staff and respondents at both organisational levels.

Staff that received the questionnaires		Respondents number and %	
TA: 29	SPs: 225	TA: 19 (67%)	SPs: 97 (43%)

The TA questionnaire was conducted through an online survey with staff of both projects.⁷ It considered the same four themes as the SP questionnaire did, but the online application allowed the use of rankings for the analysis, and more precise descriptions for the TA through open answers. Two thirds of the TA answered the questionnaire.⁸ One explanation for non-responses is that not everybody was available due to leave or field work. The parts of the online survey addressed in the findings are presented in Appendix 2.

Discussions

The questionnaires and online surveys were combined with semi-structured small-group discussions with the SPs, and with more informal, individual talks with the TA. The semi-structured discussions considered the four questionnaire themes, but also the staffers' opinions and thoughts about their work more generally, including the difficulties they encounter, ethical considerations, practical issues, and prospects for further improvement. The received comments were reflected along with the questionnaire results in the findings.

Limitations

In the online survey, the questionnaires and the face-to-face discussions, staff were given the opportunity to present themselves, their motivations and opinions. There may have been some elements of presenting 'the supposedly correct' answer, or a more favourable image of the importance of their work, or emphasising the lack of resources they face. Furthermore, some aspects in the personal relationships of the staff with their working mates and other colleagues, government officers, or family remain hidden for external researchers in this type of research. In particular, issues such as potential internal secret relations or corruption with other institutions or individual stakeholders were almost impossible to track via this type of external study, particularly at the field level. The authors read and interpreted the results with these concerns in mind.

Some individual opinions in the communities or among field staff may have remained unnoticed by the researchers or translators. The design and the surroundings of the study allowed the more informal interviews to be done mainly with the English-speaking TA. There are fewer direct comments and quotes recorded from SPs for this reason.

The long presence, and the formal and informal connections with the projects and the staff, enabled the researchers to gain a rather direct and comprehensive understanding of the project operations. However, the researchers have been dependent on the Nepali staff for translation and field support, providing an inevitable possibility for the staff to undermine, attenuate, or enforce the received information through translations.

⁷ Questionnaires were sent to all the specialists in the PSU and the ten TAs (the Water Resources Advisor) leading the district offices.

⁸ The invitation to participate was sent to 29 persons (28 men and one woman). This included 16 from RVWRMP and 13 from RWSSP-WN. Of the total 29, 19 persons responded (all men) – 10 staff from RVWRMP and nine from RWSSP-WN.

FINDINGS

Project modalities

Projects came with ready-made regulatory frameworks and norms that were defined by the project document and steered by Nepali laws, policies and plans, along with the donor project administration rules. However, isolated rural communities are far from the political decisions made in Kathmandu. At the project level, the staff worked together to develop practical instruments and guidelines to transform the project document, donor principles, and national laws and strategies into operation in each community context. They needed capabilities to apply the modalities in the communities in formal and informal ways.

Role of project guidelines

Many TA and SPs told about the importance of the written project guidelines. They were seen to provide the staff with explicit planning and supervising tools and means. The guidelines had a particularly good reputation among the staff: "without them the work would be impossible"; "it is easy as everything is there and we can rely and show to people what is possible and how things should be done". One TA commented "At community level, due to systematic implementation process, i.e. Step-by-Step guideline, the project has higher influence to reduce taboos and wrong traditions. However, there is still miles to go for improvement".

SPs emphasised that in practice the guidelines reduced risks of political interference and corruption at local levels as they explicitly defined the correct or preferred ways of working for the personnel, and for the local institutions. This was particularly important in cases where political parties tried to influence the key positions in the community water management institutions. Through the project modalities, the staff gained authority in the communities as advocates of the 'proper' customs that denied such political interference in local community institutions. In practice, the SPs deferred to the guidelines to give themselves a 'defence' to deny unacceptable requests or practices, and move the responsibility upwards. The guidelines seemed to provide some backup for the field personnel's work. These findings reflected the tension between the project objectives and active efforts of the staff, and the reality that changing local customs can be a difficult, slow process in a reluctant social environment.

Community relations

The main role of the project staff was to operate within the community. The staff gave a practical form to the ideas and objectives of the project in the guise of hardware, such as water supply, irrigation and micro-hydropower schemes; or software, such as trainings and behaviour change activities. Much of the staff's work involved balancing the social fit in the communities with the project's requirements to change local behaviours.

Implementation of law

The SPs perceived that the project work was principally in line with the government policies, and the national regulations, and law (Statements 10-11). However, most TA also emphasised that the national government policies were in reality mostly unknown to community people in remote areas. The traditional community practices were sometimes out of step with national laws and policies, involving serious caste and gender discrimination. SPs' work was then to provoke changes by facilitating questioning of traditional norms in the community. Simultaneously, SPs were required to work in ways that were the best fit possible with the local community. This took place in formal training, or in everyday interactions, for instance over a cup of tea. Balancing such conflicting necessities constituted the every-day tasks of the SPs.

Behavioural changes

A number of SPs responded that local attitude and behaviour changes were among the most difficult tasks in their work, including changes in local health and hygiene behaviours, such as open defecation, and proper maintenance of toilets. The greatest difficulties with community relations lay with changing traditional gender roles, and taboos with regard to menstruation. Some local traditions risked menstruating women's health by keeping them away from access to water for drinking, hygiene and sanitation. "It is really difficult to change the mind-set of the [local] authorities. As far as the community [are] concerned, there is still gender/caste discrimination. Women are still suppressed and they are taken as inferior creature and as far as the caste is concerned, Dalit is taken as low caste". Especially HPs, who worked with behavioural changes, open defecation, sanitation, and gender discrimination, agreed less than the other SPs with the project's fit with local community customs (Statement 7). Female SPs themselves were often not allowed to access taps during their menstruation. Making change involved nudging households towards new practices: SPs gently challenge the community by pointing out the contradiction between their commitments to maintaining a clean environment, yet forcing menstruating women to defecate in the open. The responses revealed a feeling of inadequacy that an individual worker, equipped with limited resources (and working for a project with limited resources), may have in the middle of socioeconomic problems that are embedded in the deeper layers of the culture, and societal structures.

Local collaboration

To succeed in practice, the project personnel needed to balance between endorsing the required changes and respecting local culture in a sophisticated manner. To address the evident challenges, the staff regularly utilised unofficial and informal relations. This included simple activities like taking a morning walk or cup of tea with local authorities or government officers; informal discussions with local journalists to comprehend resident opinions; or chatting with community members while carrying out monitoring of project activities. The SPs collaborated with the local authorities (such as priests, teachers, politicians, and village elders), and more formal community structures (such as Water Users' Committees, female community health volunteers (FCHVs), youth groups, mothers' groups, and Ward Citizen Forums) to tackle behavioural problems. The SPs stated that they tried to convince the local authorities about the importance of the proposed new customs promoted by the project, and then they collaborated with the authorities to internalise the practices in the communities. A TA respondent described these practices as "involving them at different levels of the activities; raising awareness on the importance of the work; encouraging them for their roles to be pivotal". If the staff did not in reality truly embrace the project objectives but had another agenda, this was difficult to observe.

Innovation through informal interactions

Many of the working innovations were invented in collaboration with locals: The respondents commented that they "get ideas, sense, and impressions and utilize [them] through innovations in [the water scheme] system, or [through] improving things". For instance, one engineer commented that he had "replicated the [community] traditions in [water infrastructure] designs to reduce contamination". This has included, for instance, placing prayer flags on water sources to encourage users to protect it, following the local religious tradition of decorating the *mandirs*, i.e. holy shrines and places of worship that are kept clean. What worked in practice was evidently often constructed in cooperation with the locals by employing local traditions, knowledge, and ways of doing, outside of the project modalities. These informal activities also meant that the project works could find good fit with the local traditions.

Donor preference

'Donor preference' in the less remote communities was an evident challenge for the SPs: People naturally preferred using donor support instead of community resources if such support was available. This was an issue in less remote localities with the presence of several donors. The situation was particularly tricky as the SPs needed to promote self-initiative in the community while working for a project that indirectly makes the community prefer external support. To cope with the challenge, the staff focused on triggering and resourcing local bottom-up undertakings and activities, instead of simply bestowing resources top-down to compliant communities. For instance, the communities needed to provide cash and kind contributions and self-manage the procurement and construction in line with the projects' guidelines. The post-construction operation and maintenance of the water schemes was a fully community-based effort.

Government relations

Project staff acted between national and donor governments and communities. The potentially inconvenient work of applying the Nepalese policies and strategies of gender equality and removal of caste discrimination in potentially reluctant remote rural localities was carried out by project staff. In this way, the government took less responsibility for the potentially inconvenient changes in the communities, yet they could take the credit from the results. In the current, messy political environment of Nepal, this was more due to a simple lack of governance and funds, rather than to a deliberate strategy.

Cooperation with tiers of government

Most TA report that national-level policies were implemented in the communities. The governmental Local Development Officers and the District Development Committees were perceived to be the most influential institutions in the districts in this regard. However, the virtual absence of local administration was emphasised by the staff, with government staff often being absent from their posts, and not making decisions in a timely fashion. This absence was evident in the Far West, in particular. This produced pragmatic problems for the implementing staff that could not always rely on the support from the government when needed. This institutional weakness may have created more room for bricolage, cf. Funder and Marani, 2015).

Cooperation with officers

Cooperation with government staff was, in principle, perceived as an important and functional part of the SPs' work (Statement 21). The leading government officers at district level had the authority to release government funds to the communities for water infrastructure development, and to ensure that all stakeholders contribute their own share. This made them central partners for the implementing staff. At practical level, however, many SPs spoke of the difficult dynamics, depending on the personalities or personal agencies of the leading government officers at district level. The local development officers in the districts had the authority to control all the relevant contracts and payments by their signature. This authority enabled them to hold up the contracts and payments, if necessary, including many of the project transactions. This could slow down transfer of funds to the community and required a lot of effort and lobbying from the project staff. On the other hand, this was one part of the deliberate integration to the local governance structures that was required in the project policy. As a result, it was generally observed that districts would not allocate counterpart government funding for the local water resources management institutions, if the SPs were not present in the district offices to advocate on the part of the community. There was a clear contradiction between the good relations in principle, and the reality, that was often more complex and obscure.

Corruption

The pernicious influence of corruption impacted negatively on the ability of the personnel to work properly. Both local government and community members were reported by the staff to be looking for ways to benefit financially from the project. Many staffers said that their work had nevertheless decreased the risk of corruption: "The project has adopted zero tolerance in any kind of [suspicious] financial deals; it's checked through intensive public auditing process and community mobilization. The modality is not very easily accepted by some of the bureaucrats..." This demonstrated how the staffers needed to maintain good relationships with the government officers, but simultaneously they should reject the possibly corrupted customs, and exemplify the transparency guidelines of the project without offending partners. The stated intolerance to corruption sometimes made the cooperation even more difficult as the officers knew that the project would reject potentially corrupted ways of cooperation, making the local partners passive. It was difficult to observe if the staff ever turned a blind eye to the corruption or took part on such actions, though it is presumed the tight financial audit would make this difficult.

Subsidies

SPs faced problems in encouraging local water institutions (such as the Village WASH Coordinating Committees) or governmental staff (such as Village Development Committees – at that time the lowest tier of government administration) to cooperate actively, meet regularly, and carry out monitoring according to their responsibilities. Some SPs complained that these partners often remained inactive as there were no incentives (such as allowances or refreshments provided by the project) that would trigger them to work to improve their community. These project partners considered the no-subsidy policy of the project, complaining that other donors have better subsidies for their staff and the local government stakeholders to promote active participation. The staff members understood that external, temporary subsidies were not sustainable, but they suffered from the resultant unwilling behaviour of their working partners. This was a continuing real-world problem for the staff – how to balance the need for short-term results through subsidised participation with a strategy for longer-term functionality and sustainability through factual local ownership.

Personal motivation

The projects were implemented in difficult environments, requiring persistence in the face of extreme weather conditions, difficult access, modest accommodation, and politically and socially challenging locations. There were set requirements for professional qualifications and experience to meet with these challenges. Project personnel were living away from their families, even on the other side of the country for some TA. The personnel spent considerable time in locations that had no access to any modern communication networks. One challenge for the project was to find ways in which to maintain the staffs' motivation in the grind of everyday work.⁹ The authors analysed which of their motivations kept them working in the challenging working conditions over time.

Motivating factors

Enthusiasm for the work was generally rated as the most important characteristic for a member of the project personnel by the TA. Apart from obvious individual incentives, such as the salary, the motivating factors that resulted in lasting enthusiasm for work could be divided into altruistic motivations and opportunity incentives. The most prevalent altruistic motivation for both TA and SP personnel was the development of the communities, and the society, in one way or another (see Statements 13-20 in

⁹ TA noted that recruiting qualified SPs and keeping them working in the field was an ongoing difficulty.

Appendix 2, Figure A). The opportunity incentives influenced the personnel's motivation: The status or image of the project in the field, along with its modalities were considered particularly important motivators for the project workers. The functioning modalities and good project status enabled the workers to gain authority and other means in the communities to work effectively. Seemingly, the opportunities for achieving good results in combination with the willingness to 'do good', kept the staff motivated over time.

Changes in motivation by experience

The findings on motivation were further supported by the finding that the longer the respondents had worked for the projects, the stronger was their authority and possibilities to influence behaviours in communities (Appendix 2 Figure B). The SP staff tended to become more positive towards their work as they gained experience: the perceived personal abilities, the possibility to do a good job, fit with the community, as well as the local appreciation and status tended to increase as the staff become more experienced (see Appendix 2 Figure B). In discussions, many SP staff stated that over time they had become more confident, better able to influence the local people, and more able to gain better capabilities to tackle the local problems. Furthermore, the new project staff saw the work to be more laborious than the experienced staff (Appendix 2 Figure B). It could be interpreted in conclusion that only the most tenacious and successful SPs who had combined the altruistic motivations and opportunity incentives effectively, had continued working for the project for several years.

Role of personnel's gender and caste

Gender or caste were considered by the TA to be less important characteristics for project personnel. This was possibly a reflection of the fact that all of the TA were men, and came mainly from Brahman or Chetri castes. Therefore, they were not facing particular disadvantages, nor perceived any difficulties. In practice, however, caste and ethnicity could be important issues in cooperation with communities, and perhaps even more critical for the SPs who were based in the communities. When it comes to issues of menstruation, for instance, it was observed that it is more difficult for men to discuss with women, and thus a female staffer is preferred.

The SPs are critical for reporting the true situation of gender or social discrimination, as they impact on project outputs (for instance the real level of open defecation). As noted earlier (4.2.2), female SPs are often subject to the same menstrual taboos as other women in the community. Many commented that despite working to change attitudes, they will not get a room to rent if they break taboos and use the toilet or touch the tap while menstruating. Dalit staff were sometimes observed to withhold criticism of caste discrimination in the community, perhaps feeling constrained by their own caste. As well as consciously aiming to fit in and not 'rock the boat' too much, it is possible that the staff unconsciously reproduce unequal power relations in society. These findings contradicted the view that caste and gender did not influence the position of a person. We find that in fact they have a real influence on the treatment of the staff in the local social networks, and influence their own behaviours. However, this is where the norms and guidelines of the project can come in – reinforcing institutional policies, and supporting and guiding local staff, and not allowing 'too much' bricolage.

DISCUSSION

Reflections on institutional theories

This study described the grassroots institutional settings in which the implementation took place. In this setting, the study demonstrated the ways in which the project personnel need to utilise the formal, designed modalities of the adaptive governance institutions. The observed implementation work was characterised by a drive to find a balance between often contradictory requirements of the

communities, the project modalities, the government partners, and the personal motives of the staffers.

As far as the three institutional elements (Scott, 2008) are concerned, the findings indicated that the project staff could employ the regulative and normative less, and needed to utilise the cultural-cognitive elements more at the local level. The staff members were comfortable to challenge the normative and regulative institutions that limited the project success. They used cultural-cognitive elements to be able to implement the project at the grassroots. This is in line with the observation that the operating environment was embedded in the local sociocultural environs that were characterised by institutional bricolage, rather than regulative or normative governance institutions.

From the governance viewpoint, the findings support the view of the reference literature that development projects need to be collaborative, adaptive processes with highly flexible designs (Mosse 1998; Ferrero and Zepeda, 2014), and continuously learning organisation (Pahl-Wostl, 2009; Pahl-Wostl et al., 2013). The adaptive capacity and learning, praised in the governance and management literature, are particularly important for the implementation process. The findings of this study explain that these capacities are particularly important because they enable informal and improvised, socially fit solutions to specific local problems, often beyond the formal project modalities and regulatory institutions. This links the adaptive and learning organisation to the perspective of institutional bricolage.

From the institutional bricolage perspective, the findings indicated that much of the institutional environs at the grassroots of the implementation are recreated and embedded by the bricolage, rather than regulatory governance institutions. In other words, much of the actual implementation occurred through bottom-up interactions, improvised activities, and informal local cooperation or conflict. This supports the idea of how institutions emerge and evolve through institutional bricolage (Cleaver, 2002; 2012; Merrey and Cook, 2012; Cleaver and de Koning, 2015). One can make a clear distinction between the institutional bricolage, and the governance perspectives to institutions. They are both evident, but the grassroots implementation environs were often more characterised by bricolage than governance. We highlight that for this reason much more effort should be put on the influence of informal interactions on the activities at the grassroots level. Based on the above discussion, it might be beneficial to study more institutional bricolage in development interventions from the adaptive management viewpoint in the future.

The study supported the view (in line with the reference literature: Ferrero and Zepeda, 2014; Gerwel-Jensen et al., 2015) that development projects may at their best work as catalysts to trigger positive changes at the grassroots. In the Nepal context, a study by Haapala et al. (2016) similarly proposed that interventions should be able to provide locally legitimate, inspiring spaces for local stakeholders through institutional bricolage. The findings suggest that this type of triggering is possible and even necessary at the grassroots level. The study indicated that the role of the implementing personnel is central in this regard.

Reflections on actor-orientation

Coming back to the role of individuals, the finding of the study replicates not only the view of bricoleurs as opportunistic improvisers, but also an aspect of individuals as negotiators, embedded in dynamic and complex power relations at multiple levels (Long, 1997; Hebinck et al., 2001). It was evident in our study that the cultural environs, power relations, skills and knowledge, past experiences, different world views, and individual concerns shaped the interactions and individuals' choices in practice, rather than only rational choice, norms, or regulations. These observations about institutional bricolage were in line with Long's arguments about the relation of policy and practice not only as a translation of ideas into reality, but rather as a messy, uncontrollable, socially embedded operating space (Long and Long, 1992; Mosse and Lewis, 2006). On the other hand, Long and Long (1992) have also considered a development intervention as "an ongoing, socially constructed and negotiated process, not simply the execution of

an already-specified plan of action with expected outcomes" (p. 35). Interpreting this statement from the perspective of these projects, it comes close to the ideas of adaptive management. Long's ideas seem to be consistent with both institutional approaches employed in this study. This study has thus contributed to Long's ideas in two ways: by contextualising practitioners' behaviour in a multidimensional way within the relevant adjacent institutional domains; and by locating Long's ideas amidst institutional bricolage and adaptive management.

Within the bricolage literature, a reference study by Funder and Marani (2015) on government officers implementing laws and practices on the ground, provides a particularly good comparison to our study. In the study, the officers in rural Kenya were observed to use certain implementation strategies at the grassroots. The authors categorised them in three domains: (i) working through personal networks, (ii) tailoring informal agreements, and (iii) delegating public functions and authority to civil society (Funder and Marani, 2015: 87). All these aspects were evident in our study, replicating the findings: The practitioners were observed working through informal networks and personal relations in all the four spheres of institutional interaction. Regarding the delegation strategy, the study observed the government delegating their more inconvenient and contested responsibilities to the project, in line with the observations made by Funder and Marani (2015). The practitioners of our study, in addition to Funder and Marani, delegated their responsibility further upwards to the project guidelines and modalities. Overall, the findings in this study are abundantly in line with the study of Funder and Marani (2015).

Another notable aspect raised by Funder and Marani (2015) is that they consider bricolage occurs in weak institutional surroundings. Our paper considered a similar weak institutional setting. We also observed institutional bricolage occurring in these less regulated and more informal environs. The findings indicated that much of the actual implementation process at the grassroots is determined by informal, improvised, and fuzzy institutional surroundings, rather than in designed or regulated governance environs. Notably, we observed that the ability to operate in these less regulated environs determines much of the implementation outcomes at the grassroots. This is where bricoleurs excel as important figures of the implementation process. Researchers, managers and decision-makers would benefit from incorporating more elements from institutional bricolage to development interventions.

The finding of this study were also in line with Nooteboom (2006), who argued that individuals need to first understand the local operative setting, and they should also be able to operate informally for local solutions. Only then can they operate effectively in local, unregulated institutions. The findings emphasised that the role of individuals is crucial, as they influence the capabilities, values and ideas in these settings. This is particularly evident in rather non-regulated local institutional environs.

Combining the institutional view with actor-orientation has one advantage compared to actor-oriented ethnographies or structural social research. The institutional understanding focuses on the sociocultural surroundings that shape the actors' acts and identities. Simultaneously, the actor-orientation reminds us that the institutional environs are also shaped by the individual actors and their actions. In less-regulated environments, such as the studied one, these actions have a more pronounced role in shaping the local institutional realities. The implementation of change in these types of challenging environments would thus benefit from more acknowledged analysis of the influence of these micro-level, two-way interactions.

CONCLUSION

This study considered the little studied institutional operational environment in which local practitioners work. The relevant institutions for the implementation were the project's internal modalities and interactions, implementation and behaviour change efforts with the communities, collaboration with the government tiers, and personal motivations. The study also bridged actor-oriented anthropology with the adaptive management and critical institutional literature.

The findings indicated that much of the actual implementation processes occur in individual interactions in informal, improvised, and fuzzy institutional surroundings; rather than in designed or regulated institutional environs. At the grassroots, an institutional bricolage perspective described well the relevant institutions and interactions, whereas the implementation organisation could be also described by dynamic institutional governance perspectives.

The powerful influences of institutional bricolage on the implementation outcomes provide a potential theme for further research. Institutional bricolage could be studied more from adaptive management and governance viewpoints. The reciprocal influence of the institutional environs and sociocultural settings on the actors themselves must be considered. Managers and decision-makers would also benefit from incorporating these elements into the analyses of development to improve the implementation formula.

ACKNOWLEDGEMENTS

This work was supported by Aalto ENG Doctoral School, and a travel grant received from *Maa- ja vesitekniikan tuki ry* for data collection. We are grateful for the active participation of the project staffs.

APPENDIX 1: STORIES OF TWO PROJECT STAFFERS

The findings regarded both TA, and SPs. We introduce by name one person from each group to exemplify the types of personal histories and motivations the staff have (both have given consent).

PSU staffer

Mr. Narayan Wagle is a WASH management professional working at the PSU, with a Master's Degree in Human Resource Management and an Engineering degree. Narayan is from the Brahman caste. Through much of his career, like most of the project staff, he has lived away from his family. He has worked both at district and PSU level. He began working with the Lumbini project as a Junior Engineer for the Government of Nepal in 1991. He reports that when he worked in Kathmandu with another job "I was with my family but I never could enjoy the job, the resources were nowhere moving to the people". From 1992 he began working with the project directly, and apart from a short period in 1995-1996, he has worked in the Finnish-Nepali water projects ever since, including in both of the current projects. He has recently been promoted to the Deputy Team Leader of RVWRMP.¹⁰

SP staffer

Ms. Sindhu Bohara Awasthi, is the FC in Navadurga VDC, and leads a group of two female and three male SPs. She is 30 years old and has worked with RVWRMP for six years, beginning as a HP in Phase II and becoming a FC in Phase III. Her family (two children of 9 and 13 years at the time of interview) lives in a nearby VDC with her mother. She sees them on weekends and they are happy that she is earning a decent salary. She says that her motivation for working with the project is to learn more, gain experience and serve the community. Originally, she had planned to go back to study after her first work experience, but she thrived well, and decided to stay. The good reputation of the project in the community is important to her. Her skills have improved with experience, and after participating in various project trainings over the years, in issues such as technical management of water supply, gender and social inclusion, and cooperatives development.¹¹

¹⁰ Interview, 3/2017.

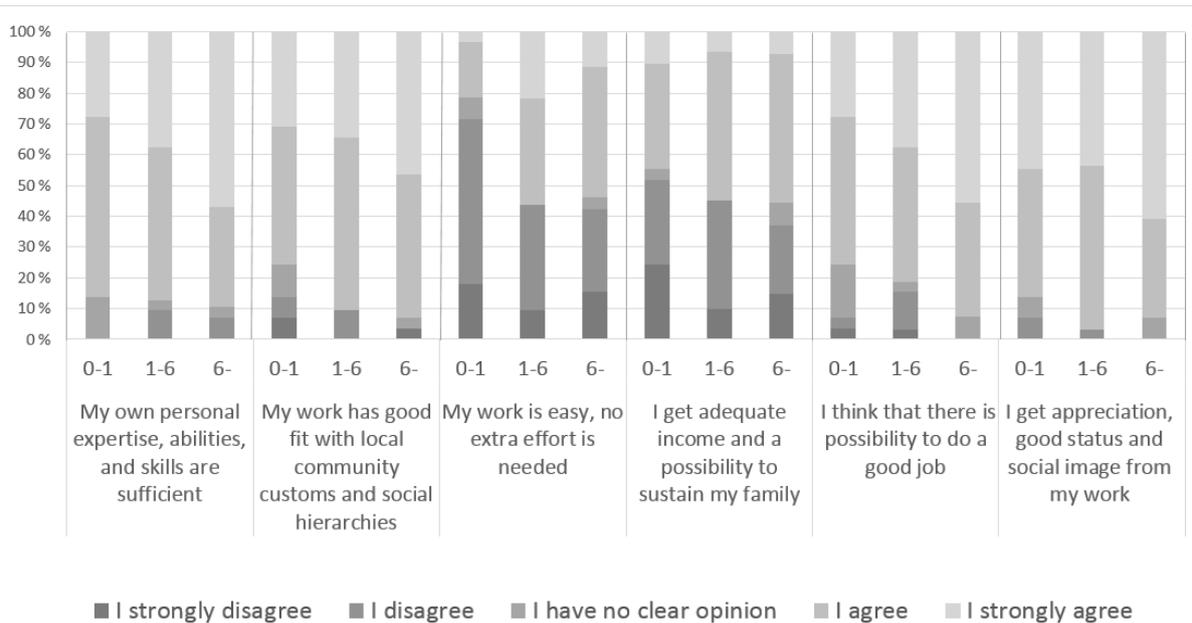
¹¹ Interview, 9/2016.

APPENDIX 2: EXTRACT OF QUESTIONNAIRE RESULTS

Figure A. Results of questionnaire responses by SPs (FC = Field Coordinator; HP = Health Promoter; T = Technical staff, engineering).



Figure B. Tendencies in the SP results by experience (years in service).



REFERENCES

Bourdieu, P. 1986. The force of law: Toward a sociology of the juridical field. *Hastings Law Journal* 38: 803-853.

Chambers, R. 1994. The origins and practice of participatory rural appraisal. *World Development* 22(7): 953-969.

Cleaver, F. 2002. Reinventing institutions: Bricolage and the social embeddedness of natural resource management. *The European Journal of Development Research* 14(2): 11-30.

Cleaver, F. 2012. *Development through bricolage: Rethinking institutions for natural resources management*. London and New York: Routledge.

Cleaver, F. and de Koning, J. 2015. Furthering critical institutionalism. *International Journal of the Commons* 9(1): 1-18.

De Haan, A. 2009. *How the aid industry works. An introduction to international development*. Colorado: Kumarian Press.

Doty, A. 2016. Bringing peace to life? A narrative analysis of Finnish development intervention in conflict-affected Nepal. Academic Dissertation. Helsinki: University of Helsinki.

Douglas, M. 1987. *How institutions think*. Syracuse: Syracuse UP.

Ferrero, Y.; de Loma-Osorio, G. and Zepeda, C.S. 2014. Rethinking development management methodology: Towards a "process freedoms approach". *Journal of Human Development and Capabilities* 15(1): 28-46.

Folke, C.; Hahn, T.; Olsson, P. and Norberg, J. 2005. Adaptive governance of social-ecological systems. *Annual Review of Environmental Resources* 30: 441-473.

Franks, T.; Cleaver, F.; Magange, F. and Hall, K. 2013. Water governance and livelihoods: Outcomes for smallholders on the Usangu plains, Tanzania. *Water Resources and Rural Development* 1-2(2013): 1-16.

Funder, M. and Marani, M. 2015. Local bureaucrats as bricoleurs. The everyday implementation practices of county environment officers in Rural Kenya. *International Journal of the Commons* 9(1): 87-106.

Gerwel-Jensen, L.; Rautanen, S.L. and White, P. 2015. Strengthening behaviour change communication in western Nepal: How can we do better? *Waterlines* 34(4): 330-346.

- Gutu, T.; Wong, S. and Kinati, W. 2014. Institutional bricolage as a new perspective to analyse institutions of communal irrigation: Implications towards meeting the water needs of the poor communities in rural Ethiopia. *Pinnacle Agricultural Research & Management* Vol. 2014. Article ID: parm_115, 14 pages.
- Haapala, J. and White, P. 2015. Why do some behaviours change more easily than others? Water use behaviour interventions in rural Nepal. *Waterlines* 34(4): 347-364.
- Haapala, J.; Keskinen, M.; White, P.; Rautanen, S.-L. and Varis, O. 2016. Organic design of water resources management in rural Nepal – Synthesizing institutional design and bricolage approaches. *International Journal of the Commons* 10(2): 1172-1201.
- Haapala, J. and Keskinen, M. 2018. The influence of different discourses on the outcomes of development policies and projects: Insights from water project implementation in Nepal. *Environmental Policy and Governance* 2018: 1-12.
- Hebinck, P., Ouden, J.H.B. and Verschoor, G. 2001. Past, present and future: Long's actor-orient approach at the interface. In *Resonances and Dissonances in Development Actors, Networks, and Cultural Repertoires*, pp. 1-19. The Netherlands: Van Gorcum.
- Hänninen, E. 2014. Legitimizing aid: Donors and policy making in the rural water supply and sanitation sector in Nepal. Academic Dissertation. Publications of the Department of Political and Economic Studies 14(2014). University of Helsinki. Unigrafia, Helsinki.
- Ingram, V.; Ros-Tonen, M. and Dietz, T. 2015. A fine mess: Bricolaged forest governance in Cameroon. *International Journal of the Commons* 9(1): 41-64.
- Jones, S.D. 2015. Bridging political economy analysis and critical institutionalism: An approach to help analyse institutional change for rural water services. *International Journal of the Commons* 9(1): 65-86.
- Komakech, H.C. and van der Zaag, P. 2011. Understanding the emergence and functioning of river committees in a catchment of the Pangani basin, Tanzania. *Water Alternatives* 4(2): 197-222.
- Koponen, J.; Suoheimo, M.; Rugumamu, S.; Sharma, S. and Kanner, J. 2012. *Finnish value-added: Boon or bane to aid effectiveness?* Report for the Ministry for Foreign Affairs of Finland. Helsinki: Erweko Oy.
- Lemos, M.C. and Agrawal, A. 2006. Environmental governance. *Annual Review of Environment and Resources* 31: 297-325.
- Levi-Strauss, C. 1962. *Savage mind (La pensée sauvage)*. Chicago: Weidenfeld and Nicolson.
- Long, N. 1997. Agency and constraint, perceptions and practice; a theoretical position. In de Haan, H. and Long, N. (Eds), *Images and realities of rural life*, pp. 1-20. Wageningen perspectives on rural transformations. Assen: Van Gorcum.
- Long, N. 2001. *Development sociology: Actor perspectives*. London: Routledge.
- Long, N. and Long, A. (Eds). 1992. *Battlefields of knowledge: The interlocking of theory and practice in social research and development*. London: Routledge.
- Merrey, D.J. and Cook, S. 2012. Fostering institutional creativity at multiple levels: Towards facilitated institutional bricolage. *Water Alternatives* 5(1): 1-19.
- MFAF (Ministry for Foreign Affairs of Finland). 2012. *Finland's development policy programme. Government decision-in-principle 16 February 2012*. Helsinki: Erweko Oy.
www.formin.fi/public/default.aspx?contentid=251855 (accessed on 21.11.2017)
- Mosse, D. 1998. Process-oriented approaches to development practice and social research. In Farrington, J.; Mosse, D. and Rew, A. (Eds), *Development as process: Concepts and methods for working with complexity*, pp. 3-30. Oxford: Routledge.
- Mosse, D. and Lewis, D. 2006. Theoretical approaches to brokerage and translation in development. In *Development brokers and translators: The ethnography of aid and agencies*, pp. 1-26. Bloomfield, USA: Kumarian Press.
- Nooteboom, S. 2006. *Adaptive networks: The governance for sustainable development*. Erasmus University Rotterdam/DHV. The Netherlands; Eburon Academic Publishers.
- Ostrom, E. 2005. *Understanding institutional diversity*. Princeton: Princeton University Press.

- Pahl-Wostl, C. 2007. Transitions towards adaptive management of water facing climate and global change. *Water Resources Management* 21(1): 49-62.
- Pahl-Wostl, C. 2009. A conceptual framework for analysing adaptive capacity and multi-level learning processes in resource governance regimes. *Global Environmental Change* 19(3): 354-365.
- Pahl-Wostl, C.; Becker, G.; Knieper, C. and Sendzimir, J. 2013. How multilevel societal learning processes facilitate transformative change: A comparative case study analysis on flood management. *Ecology and Society* 18(4): 58.
- Rautanen, S.-L. 2016. Access to water? Dynamic capacity change for sustainable rural water and sanitation services for all. Academic Dissertation. Tampere: Tampere University of Technology Publication 1373.
- Rondinelli, D.A. 2013. *Development projects as policy experiments: An adaptive approach to development administration*. New York: Routledge.
- Rusca, M. and Schwartz, K. 2014. 'Going with the grain': Accommodating local institutions in water governance. *Current Opinion in Environmental Sustainability* 11(2014): 34-38.
- Rusca, M.; Schwartz, K.; Hadzovic, L. and Ahlers, R. 2014. Adapting generic models through bricolage: Elite capture of water users associations in peri-urban Lilongwe. *European Journal of Development Research advance*. Online publication, 30 October 2014.
- Saarilehto, I. 2009. *Anatomy of an aid encounter. Actors and power in the Rural Water Supply and Sanitations Support Programme in Nepal*. Cologne: LAP Lambert Academic Publishing.
- Sharma, S. 1999. *Procuring water: Foreign aid and rural water supply in Nepal*. Kathmandu: Nepal Water Conservation Foundation.
- Sjöblom, S.; Löfgren, K. and Godenhjelm, S. 2013. Projectified politics – Temporary organisations in a public context: Introduction to the special issue. *Scandinavian Journal of Public Administration* 17(2): 3-12.
- Tortajada, C. 2014. IWRM revisited: From concept to implementation. *International Journal of Water Resources Development* 30(3): 361-363.
- Verzija, A. and C. Dominguez. 2015. The powers of water use associations: On multiplicity, fluidity and durability in the Peruvian Andes. *International Journal of the Commons* 9(1): 107-128.
- Walker, B.; Holling, C.S.; Carpenter, S. and Kinzig, A. 2004. Resilience, adaptability and transformability in social – ecological systems. *Ecology and Society* 9(2).
- White, P.; Rautanen, S.-L. and Nepal, P.R. 2017. Operationalising the right to water and sanitation and gender equality via appropriate technology in rural Nepal. In Garrido, M.V. (Ed), *Human rights and technology. The 2030 agenda for sustainable development*, pp. 217-240. University of Peace.

THIS ARTICLE IS DISTRIBUTED UNDER THE TERMS OF THE CREATIVE COMMONS *ATTRIBUTION-NONCOMMERCIAL-SHAREALIKE* LICENSE WHICH PERMITS ANY NON COMMERCIAL USE, DISTRIBUTION, AND REPRODUCTION IN ANY MEDIUM, PROVIDED THE ORIGINAL AUTHOR(S) AND SOURCE ARE CREDITED. SEE [HTTP://CREATIVECOMMONS.ORG/LICENSES/BY-NC-SA/3.0/LEGALCODE](http://creativecommons.org/licenses/by-nc-sa/3.0/legalcode)

