

‘WATER HAS AROUSED THE GIRLS’ HEARTS’: GENDERING WATER AND SOIL CONSERVATION IN 1950s CHINA*

I

INTRODUCTION

In the decade after the founding of the People’s Republic of China (PRC) in 1949, the upland village of Dengjiabao in Wushan county, in the north-western province of Gansu, gained renown as a national model in state-led efforts to curb erosion in order to prevent downstream sedimentation in the Yellow River and its tributaries, and boost agricultural production in the Loess Plateau through water and soil conservation (*shuitu baochi*).

I first went to Dengjiabao in 2017 to investigate how local cadres persuaded rural people to implement land and water management measures during the 1950s and how they championed their village as a model in nationwide conservation campaigns. While conducting the fieldwork, I had the opportunity to interview an elderly woman named Deng Fenqin, whose image had appeared in an article on Dengjiabao’s water and soil conservation achievements published in 1957 in the high-profile national periodical the *People’s Pictorial* (*Renmin huabao*) (see [Plate 2](#)). Deng Fenqin hadn’t known that the *People’s Pictorial* had published this photograph of her and her late husband. When I showed it to her, it moved her to tears, and her family crowded round to look at it. My interviews with

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Deng, the only remaining female participant in Dengjiabao's conservation campaigns of the 1950s, soon convinced me that water and soil conservation in Mao-era China (1949–76) cannot be understood without taking their gendered dimensions into account.¹ Implicitly contrasting Dengjiabao's past prominence with its current marginalization even within Gansu, one of China's poorest provinces, Deng spoke at length about the conservation campaigns of the 1950s and her role in them. These environmental management initiatives, as her recollections made evident, were deeply interconnected with changes in gender relations and shifting conceptions of women's work, and had far-reaching effects on child-rearing, food security and other aspects of rural women's everyday lives.

Campaigns to control water and soil loss depended heavily upon female labour and had distinctive consequences for women as opposed to men. At the same time, official publications that praised Dengjiabao's achievements during the 1950s presented water and soil conservation in highly gendered terms, asserting that the resulting improvements in environmental conditions and standards of living would reconfigure gender relations by enabling unmarried men in poor, resource-starved villages such as Dengjiabao to find wives. Yet a dissonance existed between this gendered vision of a good life and the experience of conservation campaigns for rural women, who had to balance the heavy physical work of transforming Dengjiabao's environment with their domestic labour responsibilities. Official documents and published sources that historians typically consult more widely sometimes offer fleeting glimpses of topics related to conservation's gendered implications for women, but such texts were mostly written by and about men. Only in my interviews with Deng Fenqin, a woman who lived through these campaigns, did the gendered dimensions of conservation come fully into view. This oral history has allowed me to trace the impact of the water and soil conservation campaigns undertaken during the 1950s in terms of women's embodied experiences of work, hunger and affliction.

¹ This article adopts Joan Scott's dual definition of gender as 'a constitutive element of social relationships based on perceived differences between the sexes' and 'a primary way of signifying relationships of power', but admittedly pays more attention to the first part of her definition than the latter: Joan Wallach Scott, *Gender and the Politics of History*, revised edn (New York, 1999), 42.

From imperial times until the early twentieth century, although women often 'helped' with agricultural tasks, prevailing gender norms in rural Han Chinese communities dictated that men farmed outdoors while women engaged in handicraft production and domestic work inside the household. After the founding of the PRC in 1949, the party state encouraged women to move from supposedly 'unproductive' handicrafts and household labour into 'productive' collective agriculture.² Water and soil conservation reflected this trend. Conservation measures depended on the female workforce throughout the 1950s, and mass mobilization for large-scale conservation efforts undertaken during the Great Leap Forward (1958–61) made women's labour even more important. These highly militarized conservation campaigns, and the horrific famine to which they contributed, forced rural women to shoulder unprecedented burdens that directly affected their domestic lives, threatened their subsistence, and had enduring physical effects.

Focusing on gender-differentiated environmental experiences as socially and historically constructed highlights, in Melissa Leach and Cathy Green's words, 'the ways that gender relations structure (and are structured through) environmental use and management' as mediated by divisions of labour and relations of power.³ Yet most global environmental histories have paid little attention to women and have largely neglected gendered differences in the effects of environmental change.⁴ Gender has

² Francesca Bray, *Technology and Gender: Fabrics of Power in Late Imperial China* (Berkeley, 1997); Gail Hershatter, *The Gender of Memory: Rural Women in China's Collective Past* (Berkeley, 2011); Jacob Eyferth, 'Women's Work and the Politics of Homespun in Socialist China, 1949–1980', *International Review of Social History*, lvii, 3 (2012); Melissa J. Brown, 'Dutiful Help: Masking Rural Women's Economic Contributions', in Gonçalo Santos and Stevan Harrell (eds.), *Transforming Patriarchy: Chinese Families in the Twenty-First Century* (Seattle, 2017). The Chinese Communist Party employed a Marxist conception of 'unproductive' labour that devalued women's work within the household: see Tamara Jacka, *Women's Work in Rural China: Change and Continuity in an Era of Reform* (Cambridge, 1997), chs. 1–2.

³ Melissa Leach and Cathy Green, 'Gender and Environmental History: From Representation of Women and Nature to Gender Analysis of Ecology and Politics', *Environment and History*, iii, 3 (1997), 351.

⁴ Important exceptions notwithstanding, historical relationships between gender and environment remain an under-developed realm of inquiry. Pioneering works include Carolyn Merchant, 'Gender and Environmental History', *Journal of American History*, lxxvi, 4 (1990); Carolyn Merchant, *The Death of Nature: Women, Ecology, and the Scientific Revolution* (San Francisco, 1990); Carolyn Merchant, 'George Bird

(cont. on p. 354)

received even less attention in works on China, a relative newcomer on the environmental history scene.⁵ My exploration of these topics in Mao-era rural China builds on recent efforts by environmental historians to demonstrate the importance of gender in human–environment interactions.

The next section of this article traces the early history of water and soil conservation in Dengjiabao and its emergence as a national model. Section III turns to the unexpected link that existed between water and marriage in local society, and how state-sponsored propaganda publicized this connection to present conservation in terms of gendered relations between women and men. Section IV focuses on the importance of female labour in water and soil conservation campaigns during the 1950s, as well as the costs that this work entailed for rural women. Section V turns to efforts in Gansu's Kangle county to emulate the model of Dengjiabao directly by mobilizing female labour for conservation projects. Juxtaposing archival documents with oral histories conducted in Dengjiabao, section VI shows that large-scale water and soil conservation campaigns launched during the Great Leap

(n. 4 cont.)

Grinnell's Audubon Society: Bridging the Gender Divide in Conservation', *Environmental History*, xv, 1 (2010); Leach and Green, 'Gender and Environmental History'; Angela Gugliotta, 'Class, Gender, and Coal Smoke: Gender Ideology and Environmental Injustice in Pittsburgh, 1868–1914', *Environmental History*, v, 2 (2000); Virginia J. Scharff (ed.), *Seeing Nature through Gender* (Lawrence, Kan., 2003); Maril Hazlett, 'Woman vs. Man vs. Bugs': Gender and Popular Ecology in Early Reactions to Silent Spring', *Environmental History*, ix, 4 (2004); Adam Rome, 'Political Hermaphrodites': Gender and Environmental Reform in Progressive America', *Environmental History*, xi, 3 (2006); Ben Jordan, '"Conservation of Boyhood": Boy Scouting's Modest Manliness and Natural Resource Conservation, 1910–1930', *Environmental History*, xv, 4 (2010); Neil Prendergast, 'Raising the Thanksgiving Turkey: Agroecology, Gender, and the Knowledge of Nature', *Environmental History*, xvi, 4 (2011); Nancy C. Unger, *Beyond Nature's Housekeepers: American Women in Environmental History* (New York, 2012); A. Fiona D. MacKenzie, *Land, Ecology and Resistance in Kenya, 1880–1952* (Edinburgh, 1998); Nancy C. Unger, 'Women and Gender: Useful Categories of Analysis in Environmental History', in Andrew C. Isenberg (ed.), *The Oxford Handbook of Environmental History* (New York, 2014); Marsha Weisiger, *Dreaming of Sheep in Navajo Country* (Seattle, 2009).

⁵ Studies of Chinese environmental history that consider gender include Antonia Finnane, 'Water, Love, and Labor: Aspects of a Gendered Environment', in Mark Elvin and Liu Ts'ui-jung (eds.), *Sediments of Time: Environment and Society in Chinese History* (Cambridge, 1998); Micah S. Muscolino, *The Ecology of War in China: Henan Province, the Yellow River, and Beyond, 1938–1950* (New York, 2015), ch. 5.

Forward subjected women to even heavier labour obligations, forcing them to balance farming and conservation work with childcare and other domestic responsibilities. In the wake of the Great Leap Forward came a famine that in China as a whole took between fifteen and forty million lives.⁶ The famine, which in Dengjiabao was precipitated in part by the militarized conservation campaigns that interfered with agricultural production, forced rural women to devise strategies to keep their families alive during the subsistence crisis and damaged their health and well-being.

II

THE RISE OF A CONSERVATION MODEL

Dengjiabao sits on a hillside south of the river Wei, about seven kilometres from the city (and county seat) of Wushan. Shortly after the founding of the PRC in 1949, the 'natural village' of Dengjiabao combined with the neighbouring villages of Zhangjiabao, Lijiaping and Majiashan to form the 'administrative village' of Dengjiabao. Throughout this article, 'Dengjiabao' will refer to the larger administrative unit. A survey published in 1952 reported that Dengjiabao had approximately a hundred farm households, with a total population of 509. Uncultivated slopes and gullies made up about half of its total area of 4.2 square kilometres. Most fields had a gradient of 15 to 20 per cent. Precipitation, which fell mostly in the early summer, caused severe erosion as run-off washed fertile soil from these slopes. As a result, gullies surrounded Dengjiabao on all sides and erosion hampered crop production, so most households lacked grain and other staple carbohydrates, such as sweet potatoes, for three to four months a year.⁷

During the first decade of the PRC, this poor village earned nationwide renown as China's socialist state mobilized the rural

⁶ On the Great Leap Forward famine, see Yang Jisheng, *Tombstone: The Great Chinese Famine, 1958–1962*, ed. Edward Friedman, Guo Jian and Stacy Mosher, trans. Stacy Mosher and Guo Jian, intro. Edward Friedman and Roderick MacFarquhar (New York, 2012); Felix Wemheuer, *Famine Politics in Maoist China and the Soviet Union* (New Haven, 2014).

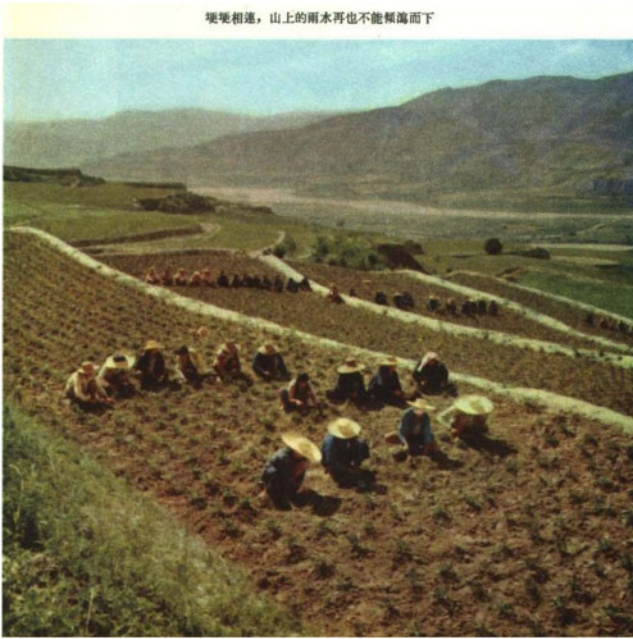
⁷ Wushan xianzhi bianzuan weiyuanhui (武山县志编纂委员会) [Wushan County Gazetteer Compilation Committee], *Wushan xianzhi* (武山县志) [Wushan County Gazetteer] (Xi'an, 2002), 328–9; Tianshui shi difangzhi bianweihui (天水市地方志编委会) [Tianshui Municipality Local Gazetteer Compilation Committee], *Tianshui shizhi, zhongjuan* (天水市志, 中卷) [Tianshui Municipal Gazetteer, Middle Section] (Beijing, 2004), 1114–15.

populace for water and soil conservation work. Previously, some households in Wushan county had implemented conservation measures such as terraces on their own, but they covered only a small area. During the early 1950s, state-led conservation campaigns went forward in tandem with agricultural collectivization, and rural households had to take part in both.⁸ Following land reform, the first stage of collectivization came in 1952 with the formation of mutual-aid teams. A year later, in 1953, these teams began to transition into agricultural producers' co-operatives, in which households pooled private landholdings, farmed together and distributed the harvest in proportion to contributions of land and labour. Beginning in spring 1955, these basic co-operatives merged into larger advanced producers' co-operatives in which land was collectively owned and members had to redeem grain based on work points earned by farming for the co-operative. The co-operatives determined the value of work points after each harvest and their members used them to pay for the grain they consumed.⁹ Water and soil conservation work was also carried out through these collective organizations, for which co-operative members earned further work points.

In summer 1952, technical personnel from Gansu's Tianshui prefecture, of which Wushan county was a part, arrived along with county-level cadres to promote water and soil conservation. After surveying local conditions, they selected Dengjiabao as a 'main point' where state agents would implement experimental measures for subsequent extension to other areas. These cadres and technical personnel encouraged local activists in Dengjiabao's mutual-aid teams to build earthen embankments, a form of terracing also known as bunds, as well as other infrastructure to curb water and soil loss (Plate 1). Once the local activists had presented the tangible evidence of the benefits of water and soil conservation, Dengjiabao's other residents followed suit. After China's national Government Administrative Council issued a directive promoting water and soil conservation in

⁸ 'Dengjiabao shuitu baochi dianxing diaocha baogao (chugao)' (邓家堡水土保持典型调查报告 (初稿)) [Dengjiabao Water and Soil Conservation Model Investigation Report (Draft)] (June 1961): Yellow River Conservancy Commission Archives, Zhengzhou, Henan, 2.1 2 T1-2-12, 3.

⁹ For a useful overview of collectivization, see Huaiyin Li, *Village China under Socialism and Reform: A Micro-History, 1948–2008* (Stanford, 2009), ch. 2.



1. Earthen embankments built to conserve water. From Chen Shoushan and Ren Shiyin, ‘Shui bu xia yuan, ni bu chu gou’ (水不下壩，泥不出沟) [Water does not go down the plateau, silt does not go out of the gully], *Renmin Huabao* (人民画报) [*People’s Pictorial*], X (1957), 24.

December 1952, Tianshui selected Dengjiabao as a model for other areas.¹⁰

In December 1953, technical experts from the Yellow River Water Conservancy Commission’s Tianshui Water and Soil Conservation Experiment Station drew up a five-year plan for Dengjiabao, and co-operative members in the village constructed terraces on inclined fields, dug dry wells and reservoirs, and planted grasses and trees on gullies and slopes. Sources do not offer definitive evidence on precisely how much these measures slowed erosion, but the local government praised collectively organized conservation efforts in Dengjiabao for limiting water and soil loss and ensuring that, as a slogan from

¹⁰ Wushan xianzhi bianzuan weiyuanhui, *Wushan xianzhi*, 328–9; Tianshui shi difangzhi bianweihui, *Tianshui shizhi, zhonguan*, 1114–15.

the mid 1950s put it, ‘water does not leave the gullies, silt does not leave the plateaus, water is clear and mountains are green’.¹¹ Official investigations also credited the conservation measures with increasing harvest yields: per capita grain production in Dengjiabao more than doubled in five years, from 188.5 kilograms in 1952 to 385 kilograms in 1956 (see Figure 1).¹²

As Dengjiabao emerged as an exemplary socialist ‘red flag in the construction of mountain areas’, Gansu launched a ‘study Dengjiabao’ campaign in 1956, with observation, cadre training and mass education meetings organized to promote its experience throughout the province.¹³ Even greater recognition followed. At the Second Nationwide Water and Soil Conservation Conference held in Beijing in December 1957, the Tianshui Water and Soil Conservation Experiment Station, Wushan county and Dengjiabao all received awards from the PRC’s National Affairs Council Water and Soil Conservation Commission, and in September 1958 the Third Nationwide Water and Soil Conservation Conference was convened in Wushan. Further accolades came in December 1958, when the PRC government honoured Dengjiabao as a ‘nationwide water and soil conservation model’ and a ‘mountain area construction model’, and the village received a commendation signed by the premier, Zhou Enlai, as an ‘advanced socialist agricultural unit’.¹⁴

III

WATER AND WEDDINGS

Yet this heroic, top-down collection of accolades for Dengjiabao fails to capture the local significance of water and soil conservation or its complex meanings. A narrative of improved

¹¹ ‘水不出沟，泥不出塬，水青山绿’: Wushan xianzhi bianzuan weiyuanhui, *Wushan xianzhi*, 328. See also Tianshui shi difangzhi bianweihui, *Tianshui shizhi, zhongjuan*, 1114–15.

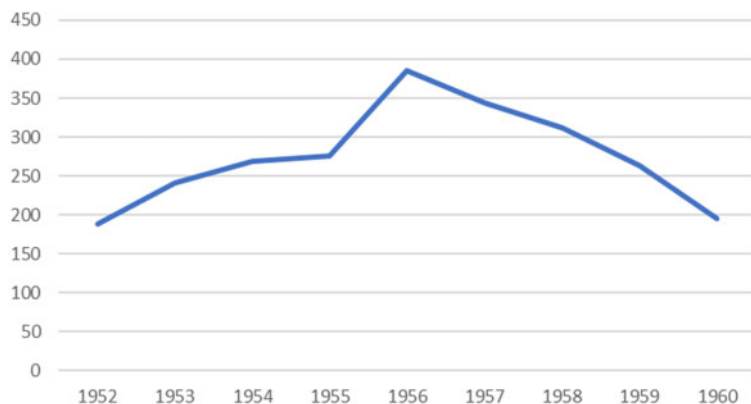
¹² ‘Dengjiabao shuitu baochi dianxing diaocha baogao’, 17.

¹³ ‘建设山区的一面红旗’: Wushan xianzhi bianzuan weiyuanhui, *Wushan xianzhi*, 328. Starting with eight ‘points’, or locations, in 1956, by May 1957 Gansu’s provincial party committee had recognized a hundred locales as ‘Dengjiabaos’ for their outstanding records in water and soil conservation: *ibid.*, 328–9; Tianshui shi difangzhi bianweihui, *Tianshui shizhi, zhongjuan*, 1114–15.

¹⁴ ‘全国水土保持的典型’, ‘建设山区的榜样’, ‘农业社会主义先进单位’: Tianshui shi difangzhi bianweihui, *Tianshui shizhi, zhongjuan*, 1114. See also Wushan xianzhi bianzuan weiyuanhui, *Wushan xianzhi*, 328–9.

FIGURE 1

GRAIN OUTPUT PER CAPITA, DENGJIABAO, 1952-1960 (KILOGRAMS)



* Source: 'Dengjiabao shuitu baochi dianxing diaocha baogao (chugao)' (邓家堡水土保持典型调查报告(初稿)) [Dengjiabao Water and Soil Conservation Model Investigation Report (Draft)] (June 1961): Yellow River Conservancy Commission Archives, Zhengzhou, Henan, 2.1 2 T1-2-12, 17.

conservation and rising grain yields ignores the everyday experience of people in Dengjiabao, and especially that of women. In particular, local environmental conditions and social constructions of female labour meant that women in the village shouldered an enormous, and hitherto largely invisible, share of the conservation work. Both men and women in Dengjiabao and surrounding villages considered carrying water to be the work of women and children, but for decades the inhabitants had stripped the land of trees, grasses and even roots to obtain fuel, so that whenever rain fell, the run-off eroded soil from the barren hillsides and left little water behind.¹⁵ To obtain drinking water, women now had to walk three to three and a half kilometres to mountain springs or to the river Wei and bring it back on shoulder poles.¹⁶ They had to 'line up and wait beside

¹⁵ 'Jianshe shanqu de yimian hongqi: Wushan Dengjiabao' (建设山区的一面红旗: 武山邓家堡) [A Red Flag in the Construction of Mountain Areas: Wushan Dengjiabao], in Zhonggong Gansu sheng Wushan xian weiyuanhui (中共甘肃省武山县委员会) [Chinese Communist Party, Gansu Province, Wushan County Committee], *Wushan xian de shuitu baochi gongzuo dianxing jingyan* (武山县的水土保持工作典型经验) [Wushan County's Water and Soil Conservation Work Model Experience] (Beijing, 1958), 38.

¹⁶ 'Dengjiabao shuitu baochi dianxing diaocha baogao', 2.

the two springs, using a metal dipper to scoop it up drip by drip when drinking water'. After two weeks without rain, there was not even muddy spring water to be collected, so they had to carry heavy loads of water several kilometres up the steep hillsides from the river below.¹⁷

The difficulty of obtaining water created such terrible working conditions for women in Dengjiabao that it made other women hesitant to move to the village, which depressed the local marriage market. As in most of China, the custom in the area was village exogamy, but the physical toil of carrying water long distances up and down steep slopes meant that parents did not want their daughters to marry into households in Dengjiabao. A popular saying in Wushan county advised: 'If you have a girl, don't marry her to Dengjiabao. Going down the mountain to carry water is truly a hardship'.¹⁸ Thus, Dengjiabao gained infamy as a place where 'getting a wife is most troublesome' and for having a larger number of unwed males (known as 'bare sticks', *guanggun*) than elsewhere.¹⁹ On the contrary, instead of young wives joining households within the village, young women from Dengjiabao could not wait to marry out to villages on the plains.²⁰

Conservation efforts in Dengjiabao in the mid 1950s, along with other improvements like the construction of a windmill to grind grain, made it a far more attractive place in the eyes of young women from nearby villages. Not only did the windmill present a novel spectacle, it also meant that women did not have to do the work of turning heavy millstones. During one of my visits, Dengjiabao's local party secretary recited a popular local proverb: 'A windmill is behind the village, hemp stalks

¹⁷ '饮水时要在两眼泉旁排队等待,用铁勺一点一滴去刮': 'Jianshe shanqu de yimian hongqi', 38.

¹⁸ '有女不嫁邓家堡,下山挑水实在苦': 'Dengjiabao shuitu baochi dianxing diaocha baogao', 2; 'Jianshe shanqu de yimian hongqi', 38. Oral history interviews conducted with residents of Dengjiabao also attest to the prevalence of this saying. Note that Dengjiabao is pronounced 'Dengjiabu' in the local dialect, so the saying rhymes: *you nü bu jia Dengjiabu, xia shan tiao shui shizai ku*.

¹⁹ '娶妻最发愁': 'Wushan xian de shuili he shuitu baochi zheng yi shi wu qianli de sudu, feiyue de fazhan zhe' (武山县的水利和水土保持正以史无前例的速度,飞跃的发展着) [Wushan County's Water Conservancy and Water and Soil Conservation Is Developing by Leaps and Bounds with Unprecedented Speed], in *Zhonggong Gansu sheng Wushan xian weiyuanhui, Wushan xian de shuitu baochi gongzuo dianxing jingyan*, 10.

²⁰ Interview with local party secretary, Dengjiabao, 18 May 2018.

grow to two or three *zhang*, and girls from the plains run up the mountain'. (Two or three *zhang* is between 6.7 and 10 metres, surely an exaggeration.) At that time, he explained, Dengjiabao was a place that people throughout Wushan county really admired.²¹ Publications from the 1950s cast the windmill as an indication that Dengjiabao had attained a 'perfectly satisfied life' and become a 'fortunate socialist new village'.²²

Underscoring the extent of the changes that came about owing to the conservation efforts, in 1958 Dengjiabao's supporters pointed to its 'four rarities': 'irrigated land going up the mountain, wet rice and hemp going up the mountain, ducks in reservoirs and land in connected parcels'.²³ Elderly residents fondly remembered the ducks, which left a lotus pond every morning to swim in a newly built reservoir and returned every evening. In a village previously plagued by acute water scarcity, a line of ducks waddling from one pool of water to another was a new and unfamiliar sight.²⁴ (Today no traces of the pond, the reservoir or the ducks remain.) Official propaganda quickly picked up on these changes in local society. At the same time, state-sponsored publications credited water and soil conservation with the changing perceptions of Dengjiabao and with attracting young women in marriage. Propaganda conveyed the message that not only did conservation increase crop yields by limiting water and soil loss, or facilitate irrigated fields and duck-ponds; better local environmental conditions also improved the marriage prospects of bachelors.

State agents paid close attention to local conditions and crafted their message to raise the profile of conservation work. This propaganda linking marriage to water and soil conservation reached a wide audience. An article that appeared in 1956 in the *People's Daily* (*Renmin ribao*) reported:

At that time, if a Dengjiabao man wanted to marry a girl from another village it was like marrying a celestial maiden from heaven, because

²¹ *Ibid.*

²² '美满的生活, 幸福的社会主义新农村': 'Jianshe shanqu de yimian hongqi', 48.

²³ '四稀罕', '水地上山, 水稻和大麻上山, 鸭子进坝, 土地连片': *ibid.*, 43-4.

²⁴ Interview with current party branch secretary, Dengjiabao, 18 May 2018.

girls were afraid that if they married into this poor mountain village not only would they go hungry, they were also afraid they'd suffer thirst.²⁵

The article recounted the tale of a young man from Dengjiabao and a girl from Linjiazhuang village who took a liking to one another, but 'because the girl's father and mother disliked that Dengjiabao lacked water the two lovers could not get married'. Now, according to the newspaper report, not only had conservation projects altered this situation, but families who had moved away owing to Dengjiabao's lack of water had started coming back.²⁶

By playing up the ability of water and soil conservation to ameliorate the difficulty that young men had in finding marriage matches, official propaganda imbued these environmental management policies with immediate significance at the level of familial and marital relations. A publication from 1958 reported:

The era of 'if you have a girl, don't marry her to Dengjiabao' has already gone away never to return. Girls from the plains have seen Dengjiabao's construction achievements and construction prospects, and they have fallen in love with this place. In the past two years, eighteen girls have already come up the mountain to get married to youths here, and there are also many other girls from the plains who ardently love Dengjiabao youths and are preparing to come up the mountain to settle down and make a home.²⁷

The reversal in marriage patterns reportedly led some people to exclaim that 'Water is the key link in mountain area construction; water has aroused the girls' hearts'.²⁸ This romanticized rhetoric reinforced the objectives of the PRC's New Marriage Law, promulgated in 1950, which prohibited arranged marriage in favour of marriage based on free choice.²⁹ According to this propaganda, young women married

²⁵ '那时候邓家堡的男人要娶外村的姑娘, 就好比要娶天上的仙女一样。因为姑娘们不但害怕嫁到这个穷山村要挨饿, 而且还害怕受渴': Liu Bang (柳柳), 'Lüshui qingshan gaoyu tian' (绿水青山膏腴田) [Green Water, Blue Mountains and Fertile Fields], *Renmin ribao* (人民日报) [People's Daily], 28 Nov. 1956, 3.

²⁶ '就是因为女方的父母嫌邓家堡缺水而使这对有情人终究没能成眷属': *ibid.*

²⁷ "有女不嫁邓家堡" 的时代已经一去不返, 平川里的姑娘看到邓家堡的建设成就和建设远景, 爱上了这个地方, 近两年来已有18个姑娘上山和这里的青年结了婚。并且还有许多川里姑娘热恋着邓家堡的青年, 准备上山来安家落户': 'Jianshe shanqu de yimian hongqi', 44.

²⁸ '水是山区建设的纲, 水打动了姑娘们的心': 'Wushan xian de shuili he shuitu baochi zheng yi shi wu qianli de sudu, feiyue de fazhan zhe', 10.

²⁹ On the New Marriage Law, see Neil J. Diamant, *Revolutionizing the Family: Politics, Love, and Divorce in Urban and Rural China, 1949-1968* (Berkeley, 2000); Hershatter, *Gender of Memory*, ch. 4.

into households in Dengjiabao not out of obligation, but out of affection for the place and the young men who lived there. Implicitly at least, state-sponsored materials sent the message that conservation measures could make young women fall in love with other poor, marginal villages and the men who lived in them. So Dengjiabao was not alone: official publications would draw similar connections between environmental improvements and a better marriage market to promote water conservancy projects in other parts of Wushan county.³⁰

Official propaganda also used the cause of conservation to perpetuate marriage relations that subordinated women to men. For example, a lavishly illustrated article about Dengjiabao published in the *People's Pictorial* in 1957 declared:

In the past, girls from the plains were not willing to marry up the mountain [to Dengjiabao]. They thought that if they did not die of hunger they would die of thirst. However, over the past five years fifteen [young women] have got married [to young men from] here. Deng Fenqin (right), the wife of co-operative member Li Baoxu (left), is one of them.³¹

(See Plate 2.) The image accompanying this caption hardly represented a marriage based on socialist ideals of gender equality. Rather, by showing a seated Deng Fenqin giving Li Baoxu water from a new vacuum flask while he took a rest from working in the fields, the illustration cast Deng in the role of a diligent and attentive wife. Presenting marital relations in this manner connected conservation with social ideals that reinforced conventional notions of masculinity and femininity. Not only did conservation work help Li Baoxu get married, the image implied, it had enabled him to find a wife who slotted neatly into predefined gender roles by working to ease his burden throughout the day.

That the *People's Pictorial* cultivated an image of Li Baoxu and Deng Fenqin as a model husband and wife was far from coincidental. Deng Fenqin, who in 1956 came to Dengjiabao at the age of 18 from a nearby village on the plains, was a Chinese

³⁰ Zhonggong Gansu sheng Wushan xianweihui bangongshi (中共甘肃省武山县委员会办公室) [Chinese Communist Party Wushan County Committee Office], *Qiongshan kujing bian le yang* (穷山苦境变了样) [Barren Mountains and Bitter Circumstances Have Changed their Appearance] (Beijing, 1958), 50–3.

³¹ Chen Shoushan (陈寿山) and Ren Shiyin (任诗吟), 'Shui bu xia yuan, ni bu chu gou' (水不下塬, 泥不出沟) [Water Does Not Go Down the Plateau, Silt Does Not Go Out of the Gully], *Renmin huabao* (人民画报) [People's Pictorial], x (1957), 25.



过去平地的姑娘都不願嫁到山上来，認為餓不死也要渴死。但近五年中已有十五个嫁到这里来了，社員黎保緒（左）的妻子邓粉琴（右）就是其中的一个

2. Li Baoxu and Deng Fenqin. From Chen and Ren, 'Shui bu xia yuan, ni bu chu gou', 25.

Communist Party member and she had married into a family that included Dengjiabao's most prominent party activists.³² Li Baoxu's younger brother Li Xuding was deputy director of the local agricultural co-operative and a 'Gansu province water and soil conservation labour model'.³³ Li Baoxu and his brother have long since passed away, but during our interviews, Deng Fenqin confirmed the appeal that Dengjiabao had for young women during the first decade of the PRC. In her words, 'Lots of women from the plains married into this place, but now I can't recall their names. At that time, they thought that Dengjiabao was all the rage. When Dengjiabao built a windmill for grinding grain they thought Dengjiabao was great'. Along with Deng, seven or eight other women from the plains came up the mountain to marry men in Lijiaping, which she remembered as a dramatic break from the established pattern in which women from upland villages went away to marry men on the more prosperous plains below.³⁴ She had already heard of Dengjiabao's renown when she was introduced to Li Baoxu as a marriage match, and she happily accepted the proposal.³⁵ For households in other parts of Wushan county, now that Dengjiabao had a windmill, reservoirs full of water with ducks swimming in them, and a conservation infrastructure that slowed erosion, it had become an attractive place to send their daughters.

By easing the scarcity of resources that had previously afflicted Dengjiabao, water and soil conservation made women's work lighter. Deng Fenqin related that obtaining adequate drinking water was a persistent difficulty during the 1950s, although construction of an earthen reservoir in a gully near Dengjiabao alleviated it somewhat: 'At that time, in Dengjiabao some places on the mountain had natural spring water, but after that it wasn't enough to drink and we drank water from the reservoir'.³⁶ In addition, planting trees and grasses for conservation purposes made the work of gathering wood as biofuel (the most important source of rural domestic energy) less difficult. As in much of north-west China, acute shortages of

³² Interview with Deng Fenqin, 7 Sept. 2019.

³³ '甘肃省水土保持模范': Chen and Ren, 'Shui bu xia yuan, ni bu chu gou', 22.

³⁴ Interview with Deng Fenqin, 19 May 2018.

³⁵ Interview with Deng Fenqin, 7 Sept. 2019.

³⁶ Interview with Deng Fenqin, 19 May 2018.

what locals termed the ‘three materials’ (*sanliao*) — fuel, fodder and fertilizer — plagued Dengjiabao. Residents had long since cut down the trees and depleted all other available vegetation, so they had to travel far away to the mountains to gather fuel.³⁷ Deng noted that during the late 1950s, ‘Mostly we could find branches from sea buckthorn plants (*suanqi*, *Hippophae rhamnoides*) as kindling to burn’. These plants have vicious thorns, which have scratched my own legs and arms on more than one occasion during hikes through the hills near Dengjiabao, but during the 1950s some of the village collective’s female members specialized in cutting and gathering these plants for fuel and earned work points for their labour.³⁸ By relieving the difficulty of obtaining water and fuel, water and soil conservation measures carried out during the mid 1950s appear to have brought about a genuine improvement in the lives of local women.

IV

WOMEN’S WORK IN WATER AND SOIL CONSERVATION

However, women did not merely receive the benefits derived from water and soil conservation measures: they made these improvements possible through their own physical labour. Women doing agricultural work, especially in the busy farming season, were certainly nothing new in rural China, even though in most villages the norm of female seclusion gave fieldwork the stigma of poverty and public visibility. But in the 1950s, the PRC party state encouraged women to take part in collective agriculture year round to boost productivity and free male labour for other collective enterprises.³⁹ The mobilization of female workers in Wushan county overcame the problem of insufficient labour power, by which leaders meant the scarcity of male workers. As one source reported, cadres in Wushan had women replace men in raising livestock, ploughing, seeding, hauling manure and composting to ensure the availability of able-bodied males for water and soil conservation campaigns. In the winter of 1957, putting women in these roles enabled

³⁷ ‘Jianshe shanqu de yimian hongqi’, 38.

³⁸ Interview with Deng Fenqin, 19 May 2018.

³⁹ Gail Hershatter, *Women and China’s Revolutions* (Lanham, Md., 2018), 233–4; Hershatter, *Gender of Memory*, ch. 5.

Wushan to mobilize sixty thousand male labourers for water conservancy projects without negatively affecting the transport of fertilizer or other agricultural work.⁴⁰

Beyond freeing up men's labour power by taking on routine male tasks, women also directly participated in mass mobilization for large-scale conservation campaigns. Indeed, official publications pointed to the full exploitation of female labour power as an integral part of Dengjiabao's success in water and soil conservation. One agricultural co-operative in Wushan noted that 'during the spring ploughing women's power is idle', so it mobilized women for water and soil conservation work, and in spring 1957 alone women and children built over nine hundred *mou* (approximately seventy hectares) of embankments.⁴¹ A report on Dengjiabao published in 1958 advised cadres 'also [to] pay close attention to giving full play to women's activist function' by involving them in conservation work. The rate of women's participation in collective labour reached nearly 100 per cent in Dengjiabao that year, and they did almost all the work of afforestation, digging level trenches, and building earthen embankments.⁴²

Deng Fenqin recalled that she and female members of her family regularly engaged in water and soil conservation work during the first decade of the PRC: 'All the women took part at

⁴⁰ Wushan xian renmin weiyuanhui (武山县人民委员会) [Wushan County People's Committee], 'Gansu Wushan: shuili, shuitu baochi yundong yuejin zai yuejin ziran, shehui mianmao rixin yueyi' (甘肃武山: 水利, 水土保持运动跃进再跃进自然, 社会面貌日新月异) [Gansu Wushan: The Water Conservancy and Water and Soil Conservation Campaign Is Taking Great Leap after Great Leap, the Face of Nature and Society Changes with Each Passing Day], *Renmin Huanghe* (人民黄河) [People's Yellow River], vi (1958), 32–3.

⁴¹ '春耕时妇女力量闲': Weibei fangwentuan (渭北访问团) [Weibei visit group], 'Wushan xian Guaner nongyeshe shuitu baochi gongzuo jingyan' (武山县观儿农业社水土保持工作经验) [Wushan County Guaner Agricultural Co-operative's Water and Soil Conservation Work Experience], in *Tianshui zhuanqu zhuan, xian, xiang sanji shuitu baochi zhongdian huiyi huibian* (天水专区专, 县, 乡三级水土保持重点会议汇编) [Tianshui Prefecture Prefectural, County and Township Water and Soil Conservation Main Point Meeting] (ed.), *Shuitu baochi cankao ziliao huiji (di yi ce)* (水土保持参考资料汇集 (第一册)) [Water and Soil Conservation Reference Materials Collection (Book 1)] (Tianshui, 1957), 75.

⁴² '还要着重注意发挥妇女的积极作用': Gansu sheng nonglingting shuiliju (甘肃省农林厅水利局) [Gansu Province Agriculture and Forestry Department Water Conservancy Bureau], 'Dengjiabao kaizhan shuitu baochi gongzuo de jingyan' (邓家堡开展水土保持工作的经验) [Dengjiabao's Experience Developing Water and Soil Conservation Work], *Huanghe jianshe* (黄河建设) [Yellow River Construction], 31 Jan. 1958, 78.

that time. Some were especially outstanding and were selected as labour models and the like'. Women like Deng also attended the meetings held to mobilize residents for conservation campaigns. As she proudly stated, 'Starting in 1956 in Dengjiabao, whenever there was a meeting I was there'.⁴³ As Gail Hershatter has shown, the PRC party state reconfigured social space during the early 1950s, making it acceptable, and eventually compulsory, for women to leave the confines of their households and gather in work sites and meeting grounds.⁴⁴ Thus, water and soil conservation projects mobilized female as well as male labour power, though a gendered division of labour still applied. Male workers in Dengjiabao did the work of constructing reservoirs, dams and wells, but women worked on all other water and soil conservation projects alongside men to build terraces and embankments, dig ponds, plant trees and grasses, and level fields.⁴⁵

Local archives from the 1950s tell a similar story, while also giving inklings of popular discontent about the large-scale mobilization of female labour for conservation projects. In early 1956, Tianshui administrative area launched the 'one million wells, cisterns, reservoirs and water cellars' campaign to conserve water supplies. Within three months, the campaign had reportedly irrigated 48,000 hectares of land and had 'controlled' water and soil loss on 647,500 hectares. Not only were many of these conservation projects of extremely poor quality, but the campaign aroused considerable discontent.⁴⁶ Some disgruntled residents asked, 'How many women are going to have

⁴³ Interview with Deng Fenqin, 19 May 2018.

⁴⁴ Hershatter, *Gender of Memory*, 66–7, 104–5, 127–8.

⁴⁵ 'Dengjiabao shuitu baochi dianxing diaocha baogao', 23.

⁴⁶ Tianshui zhuanshu linshuiju (天水专署林水局) [Tianshui Prefectural Commissioner's Office, Forestry and Water Bureau], 'Tianshui zhuanshu jinian lai shuili shuibao gongzuo fazhan qingkuang' (天水专区几年来水利水保工作发展情况) [The Situation of the Development of Water Conservancy and Water and Soil Conservation Work in Tianshui Prefecture over the Past Several Years] (1958): Tianshui Municipal Archives, B34 141 056, 5–6. The campaign in Wushan is discussed in Yu Shenming (于申明), '10 wan mu baogu he 20 wan jing tang ba jiao quan de jingyan jiaoxun' (10万亩包谷和20万井塘坝窖泉的经验教训) [The Experience and Lessons of 100,000 *mou* of Maize and 200,000 Wells, Cisterns, Reservoirs and Water Cellars], in Zhengxie Wushan xian wenshi weiyuanhui (政协武山县文史委员会) [Chinese People's Political Conference, Wushan County Literary and Historical Committee] (ed.), *Wushan xian wenshi ziliao xuanji* (武山县文史资料选辑) [Wushan County Literary and Historical Materials Selections], iv (1993), 39–51.

miscarriages?⁴⁷ Their grievances leave no doubt that the campaign mobilized large numbers of women, even while pregnant, to do heavy labour on conservation projects alongside their male counterparts regardless of their personal situation. Undoubtedly, the resulting lost pregnancies caused them enormous physical and emotional pain.

Leaders of the collectives subjected women who did not take part in agriculture and in water and soil conservation projects to social and political pressure. A writer who visited Dengjiabao in 1958 observed a 'big-character poster' (*dazibao*) emblazoned with the headline 'Embroidery girls please come downstairs'. The poster criticized these young unmarried women for staying within their households and sewing. But the point was to persuade them to give up their 'unproductive' lifestyle and take part in 'productive' collective labour. The poster's text read:

Co-operative members, everyone look, one team has three female idlers who idle about and do not go outdoors, go to the fields, or take part in production ... If you give up your embroidery girl airs and engage in production, if you want to be a labour model, it will not be difficult.⁴⁸

From the perspective of Chinese Communist Party cadres, observing 'feudal' practices like female seclusion, regardless of what work these women did in their homes, amounted to idleness and a backward-looking adherence to gender roles associated with class enemies. In the new China, women had to go outdoors and participate in collective production. At a mass meeting, the three women in question swore that they would take off their 'idler hats' and diligently take part in productive labour, a pledge that they fulfilled.⁴⁹ The poster makes it clear that, for some women at least, leaving the home to take part in agricultural labour was hardly exciting or liberating. It took explicit devaluation of work performed inside the home and a degree of shaming to alter the old gendered household division of labour and induce all women to participate in conservation work.⁵⁰

⁴⁷ '妇女流产多少人': Tianshui zhuanshu linshuiju, 'Tianshui zhuanqu jinian lai shuili shuibao gongzuo fazhan qingkuang', 5-6.

⁴⁸ '社员们大家看, 一队有三个女懒汉, 游手好闲不出门, 不下地, 不生产 ... 放下绣女架子搞生产, 想当模范也不难': Ma Tieding (马铁丁), *Geming fengge ji* (革命风格集) [Revolutionary Style Anthology] (Lanzhou, 1958), 219.

⁴⁹ '懒汉帽子': *ibid.*

⁵⁰ On the 'invisibility' of female domestic labour, including embroidery, in rural China during the 1950s, see Hershatter, *Gender of Memory*, ch. 7.

V

MAKING A 'THREE-EIGHT DENGJIABAO' IN KANGLE COUNTY

In 1957 Gansu's party leaders launched a 'ten thousand Dengjiabaos' campaign, which encouraged other localities to mobilize female labour to limit water and soil loss through conservation measures. During this campaign, the model of Dengjiabao exerted a direct influence on efforts to maximize the exploitation of female labour in other parts of the province. In March 1958, for instance, the party branch of the Nianpu co-operative in Dangguan township, Kangle county (about 170 kilometres north-west of Wushan), endeavoured to convert an erosion-prone gully into an exemplary 'Dengjiabao'. With support from the local party branch and the social management committee, the local women's federation mobilized 120 women to 'advance militarily' against the gully for ten days and eight nights. However, female members of the co-operative expressed dissatisfaction with the campaign. According to an official report, some of them complained, 'This year all the male labour power is constructing irrigation canals'.⁵¹ Some found it too difficult to climb the slopes; others said, 'We don't have the strength to construct anything'.⁵²

The local cadres responded at first with propaganda stressing that carrying out water and soil conservation increased production for the collective. Invoking the date of International Women's Day, 8 March, they asserted that if women did conservation work at night after completing all their other household tasks, they could turn the gully into a 'beneficial "Three-Eight Dengjiabao"'.⁵³ These exhortations got the campaign under way, but during its most critical stage the number of women who turned out for work fell by 50 per cent. According to the report,

Some women did not come because they had small [that is, bound] feet and the hills were steep, so it was difficult to walk at night. Some women did not come because there was no one to look after their

⁵¹ '进军'; '今年男劳力都修水渠': 'Yi er ling funü zai kuzhan shi tian ba ye shixian le sanba Dengjiabao' (一二零妇女在苦战十天八夜实现了三八邓家堡) [120 Women Have Fought a Bitter Battle for Ten Days and Eight Nights to Bring about a Three-Eight Dengjiabao] (n.d. [1958]): Gansu Provincial Archives, Lanzhou, 108-002-00038-0006, 1.

⁵² '没力气修不动': *ibid.*

⁵³ '造福的"三八"邓家堡': *ibid.*, 2.

children. Some women believed that 'Doing a little work at night isn't any use'.⁵⁴

The impediments created by foot binding and childcare responsibilities made many women unwilling or unable to take part in the conservation campaign, and this affected the progress of the work.

To circumvent these obstacles, the local authorities formulated two principles to maximize the output from women's labour. First, they resolved to rationalize plans for female labour power. The 'pregnant women and women with weak bodies' were assigned lighter tasks, while younger and stronger women were assigned heavier work.⁵⁵ Elderly women with bound feet were assigned to gentle slopes and younger women with unbound feet worked on steeper land. No matter how much difficulty they had walking, everyone had a job to do. Secondly, cadres and officials recognized that they had to 'pay attention to women's special circumstances'. Mothers with infants had to have time to nurse their children; they could also return home for meals. But women without children had to eat at the work site to avoid travelling back and forth, causing delays.⁵⁶

With these arrangements in place, 'women's enthusiasm for labour surged rapidly', and old women of 70 took part alongside girls of 13.⁵⁷ Even women who had previously refused to participate in the campaign went up the hillsides to engage in labour. Some women did not want to show up late for work in the morning, so they skipped breakfast and instead brought a few pieces of steamed bread to eat at the work site. Official reports lauded women for working at night in freezing weather. Some women declared that

The snow has permeated our clothes, but it has not permeated our hearts. We resolve to struggle against hardships, treat moonlit nights as daylight, and do two days' work in one day. [For as long as we] do not become a Dengjiabao, we will not go back down the hills.⁵⁸

⁵⁴ '有的妇女因为脚小山陡晚上难走，不来了，有的妇女因为孩子无人看管不来了，有的妇女认为晚上做一点活顶不了事': *ibid.*

⁵⁵ '孕妇和体弱的妇女': *ibid.*

⁵⁶ '照顾妇女特殊情况': *ibid.*

⁵⁷ '妇女劳动热情迅速高涨': *ibid.*, 3.

⁵⁸ '雪下透了我们的衣裳，不透我们的心，我们坚决和困难作斗争，月夜当白天，一天顶两天，不实现邓家堡我们不下山': *ibid.*

Not only did their performance ‘arouse the confidence and resolve of the broad mass of women in constructing socialism’, but men praised female workers for surpassing the martial heroine from the Song period Mu Guiying.⁵⁹ By accommodating the specific circumstances of women, whether they had bound feet or young children to care for, the campaign met its goals. Learning from Dengjiabao meant limiting the loss of water and soil by exploiting female labour to the utmost extent.

VI

WOMEN IN THE WAR IN DENGJIABAO

Although Dengjiabao’s attainment of model status pre-dated the Great Leap Forward, the campaign, which in Gansu focused on large-scale water conservancy projects, ramped up the scale and intensity of water and soil conservation campaigns throughout the province.⁶⁰ During the Great Leap Forward, Gansu’s party leaders extended the ‘ten thousand Dengjiabaos’ campaign, initially launched in 1957, to promote the village’s achievements in other locales.⁶¹ As a result, the example of Dengjiabao assumed even greater significance. In July 1958, in preparation for the Third Nationwide Water and Soil Conservation Conference, held in Wushan in September that year, a hundred thousand people gathered on the hillsides fringing the river Wei to engage in conservation work. The ‘main battlefield’ was in Dengjiabao. The slogans ‘With a great army of a hundred thousand in battle formation, the Wei’s banks will improve their appearance’ and ‘Wushan’s people will remake the earth’ lent inspiration to the campaign.⁶² Three times in summer and autumn 1958 Wushan’s party committee mobilized twenty-five thousand people from all

⁵⁹ ‘启发了广大妇女群众建设社会主义的信心和决心’: *ibid.*

⁶⁰ The most costly of the Great Leap Forward hydraulic engineering projects in Gansu was the diversion of the river Tao, which is brilliantly explored in Liu Yanwen (刘彦文), *Gongdi shehui: yin Tao shangshan shuili gongcheng de geming, jitizhuyi, yu xiandaihua* (工地社会: 引洮上山水利工程的革命, 集体主义, 与现代化) / *Revolution, Collectivism, and Modernization in China: A Case Study of the Yintao Water Conservancy Project in Gansu Province* (Beijing, 2018). See also Yang, *Tombstone*, 122–5.

⁶¹ Tianshui shi difangzhi bianweihui, *Tianshui shizhi, zhongjuan*, 1114–15.

⁶² ‘十万大军摆阵势渭河两岸振 [sic] 容颜; ‘武山人修地球’: Yao Zhicui (姚之萃), ‘Wushan xian “dayuejin” pianduan jishi’ (武山县 ‘大跃进’ 片断纪实) [A Fragmentary Record of Actual Events in Wushan County during the Great Leap Forward], *Tianshui wenshi ziliao* (天水文史资料) [Tianshui Literary and Historical Materials], xvi (2010), 111.

over the county to 'wage a great war in Dengjiabao', expanding the scale of water and soil conservation by filling the gullies with soil, constructing check-dams, building terraces and planting shelter-belt trees to reduce erosion.⁶³ During these conservation campaigns, propaganda teams went to Dengjiabao to 'recite quick-tempo ballads' and dance, while some female residents sang into megaphones to arouse popular fervour. Everyone else worked together to transform the landscape.⁶⁴ As textual sources and oral histories make evident, during mass conservation campaigns like the 'war' in Dengjiabao, women worked alongside men.

Deng Fenqin recalled the sheer enthusiasm with which Dengjiabao's residents greeted mobilization for this water and soil conservation campaign. 'The great war was waged at that time. While doing work, when the masses lined up, Chairman [Mao]'s portrait was carried at the front as they walked'. As people laboured, they posted Mao's portrait at the work site.

After they went, when the work was finished, the Chairman's portrait was carried back in the front. Those who could sing would sing songs. There were a lot of songs that they sang ... Then, when they lined up, those who could sing stood in front and those who couldn't sing stood in the rear. I can't sing, so I stood in the rear.

The atmosphere resembled that of a festival as much as a conservation project. 'At that time, the commune members were very enthusiastic. The local people were all very happy. They sang as they worked'. Although she did not sing, as a party member Deng took the lead in these conservation projects.⁶⁵ 'At that time', she proudly stated, 'it was often propagandized that the party members were in front. I worked in the front and that's how it was'.⁶⁶ The excitement and fervour that characterized the war in Dengjiabao, along with the leadership of grassroots cadres, motivated everyone, male and female, young and old, to do their utmost to remake the landscape.

However, enthusiasm alone could not sustain the level of physical effort devoted to these campaigns. During the Great Leap Forward, large-scale hydraulic engineering and conservation projects involved communes made up of tens of thousands of

⁶³ '大战邓家堡': Tong Shubao (桐树苞), 'Hongqi xian: Wushan' (红旗县: 武山) [Red Flag County: Wushan], *Tianshui wenshi ziliao*, xvi (2010), 97.

⁶⁴ Interviews with Deng Fenqin, 18 May 2018, 7 Sept. 2019.

⁶⁵ Interview with Deng Fenqin, 7 Sept. 2019.

⁶⁶ *Ibid.*

people appropriating labour and resources from subordinate units with little or no remuneration.⁶⁷ Men left home to work on infrastructure development projects, which led to acute labour shortages. Collectives responded by mobilizing women in unprecedented numbers to work long hours in the fields.⁶⁸ In this manner, as Hershatter has argued, the Great Leap Forward witnessed ‘the definitive emergence of women as a mainstay of the agricultural labour force’.⁶⁹ In Dengjiabao, where top priority was given to meeting water and soil conservation targets, agricultural production became a secondary concern. Because male able-bodied labourers and key local leaders left the village to take part in conservation and hydraulic engineering projects, as one Wushan county official recalled, ‘the ones who really carried out agricultural production in production teams were mostly old people, women and disabled people, and they were not equal to the task’.⁷⁰

Oral history interviews make it possible to fill in the gendered gaps in written sources, revealing how women who lived through the Great Leap Forward experienced these ambitious conservation efforts. Deng Fenqin’s recollections bring to the fore the effects on households of the water and soil conservation campaigns. Her account illustrates what the military-style mobilization meant for rural women who participated in it and how it changed the contours of their everyday lives.

First, with mothers mobilized for conservation work alongside everyone else, they could not look after their children. Like all rural women in China during the 1950s, Dengjiabao’s female residents worked regardless of whether childcare was available.⁷¹ According to Deng Fenqin, ‘When there was the great war, which was in 1957 and 1958, at that time the adults all went out to do work’. As a result, mothers and most other adult family

⁶⁷ Tong, ‘Hongqi xian: Wushan’, 106.

⁶⁸ Hershatter, *Women and China’s Revolutions*, 240.

⁶⁹ Hershatter, *Gender of Memory*, 237.

⁷⁰ ‘真正在生产队从事农业生产的大部分是老人，妇女和残疾人，确实力不胜任’：Yao, ‘Wushan xian “dayuejin” pianduan jishi’, 111.

⁷¹ Hershatter, *Women and China’s Revolutions*, 241; Hershatter, *Gender of Memory*, 196–8, 248–50.

members could not look after small children.⁷² Deng recalled that she had previously attended to household work, but

when they said that party members and cadres should take the lead we didn't hesitate and ran [to do it]. When we went, we were very happy. We just did it, not paying attention to anything in the household. At that time, we worked hard ... Whatever they said, we only paid attention to doing it ... At that time, if they said go in the daytime [we] went in the daytime. If they said go in the evening [we] went in the evening.⁷³

Whatever the hour, conservation took priority over family responsibilities.

Although mothers tried their best to provide care for their children in the fields and hills, especially when the infants needed to be nursed, they often had to rely on older children and elderly people who no longer engaged in physical labour to fulfil this task. 'Sometimes if [they] took the children to the mountain and then someone came to inspect, it looked bad, so they left the children at home and made the old folk watch them'. In no small part, this was due to the expectations of men at the work site and their belief that taking care of children did not truly qualify as a form of labour. Combining domestic responsibilities like childcare with agricultural labour met with disapproval from local cadres and officials, all of them men, who considered mothers taking care of children at work sites unseemly, as well as an impediment to work. Older siblings played their part by taking infants out to their mothers, who spent most afternoons busy with farm work. As Deng put it, 'After the students were released from school, they took the [nursing] children to their mothers to feed them milk'. Deng laughed when she remembered how some babies got better treatment than others: 'The adorable ones kept getting carried off [to be played with and looked after], but no one took the ugly ones'.⁷⁴

As in other parts of China during the Great Leap Forward, collectives in Wushan also organized nurseries to look after children while their parents worked. An article in the newspaper *Wushan News* (*Wushan bao*), for instance, reported that Wushan's Zhongliang co-operative had 'realized that women being encumbered by children led to losses in production', so on

⁷² Interview with Deng Fenqin, 19 May 2018.

⁷³ Interview with Deng Fenqin, 7 Sept. 2019.

⁷⁴ Interview with Deng Fenqin, 19 May 2018.

25 March 1957 its women's federation organized a 'childcare group'.⁷⁵ During a three-month trial period, 'they organized various types of childcare organization to solve the pressing difficulties of the mass of female co-operative members'.⁷⁶ These groups built upon informal parenting networks that families and neighbours had already devised. By July 1957 the co-operative had formed three childcare groups and fifteen 'field babysitting groups', in which women took turns to look after children while doing agricultural labour, while forty-five households assisted relatives and neighbours by looking after one another's children. These arrangements took care of a total of 551 children, 'solving the difficulty of being encumbered by children for 106 mothers and increasing their work turnout rate'.⁷⁷ Thus, in a little over a month, after her children joined the childcare group, a woman named Run Junmei, who had only worked four shifts in three months, put in more than thirty workdays. Whenever she met someone, Run happily said, 'If the childcare group hadn't been organized, in a single year I wouldn't have been able to earn these work points'.⁷⁸

Since mothers did not receive work points for taking care of their own children, the devaluing of household labour had real material consequences. When the Zhongliang co-operative initially started to organize childcare groups, many women had misgivings, fearing that outsiders would not take good care of their children. Mothers were also unhappy that caregivers would be given work points for childcare, which they usually provided without compensation, while their own burden would be heavy because they had to engage in farm labour to earn work points. In response to this situation, the co-operative organized various types of childcare group. For children over 2 years old there were two types of arrangement. One consisted of relatives and neighbours providing mutual assistance, while the other involved brigades organizing childcare groups by 'selecting ten elderly

⁷⁵ '确实体会到妇女因孩子拖累给生产造成的损失'; '托儿组': 'Zhongliangshe nü sheyuan haizi tuolei wenti jieju de hao' (中梁社女社员孩子拖累问题解决的好) [Zhongliang Co-operative Has Solved the Problem of Female Co-operative Members Being Encumbered by Children], *Wushan bao* (武山报) [Wushan News], 14 July 1957, 2.

⁷⁶ '组织了各种形式的托儿组, 解决了广大女社员的切身困难': *ibid.*

⁷⁷ '解决了一百另 [sic] 六个母亲因孩子拖累的困难, 提高了劳动出勤率': *ibid.*

⁷⁸ '要不是组织了托儿组我一年也挣不了这些工': *ibid.*

people who are public-minded and selfless and have experience in taking care of children to be responsible for looking after them and rationally determining compensation'.⁷⁹ In Deng Fenqin's recollection, the childcare centres set up during the Great Leap Forward had no real facilities and did not depart from ad hoc arrangements that parents had already worked out: 'Actually it [the nursery] just found a few old folk to watch the children'.⁸⁰ At the same time, the Zhongliang co-operative also organized 'production groups' to take 150 children under 2 years of age into the fields, with mothers taking turns to watch them. Ten women in one brigade organized a production group, took their children to the fields, and arranged shade tents, sheepskins and other utensils needed to care for them. Co-operative members indicated that these childcare organizations had three good points: 'children could be nursed in a timely fashion, mothers were relieved that caregivers were taking good care of them, and they could earn [points for] workdays, so their livelihoods improved'.⁸¹ By systematizing childcare networks that parents had already devised on their own, co-operative organizations made it possible for mothers to balance their concern for their children's safety with the need to take part in collective labour. Yet these arrangements also doubled the amount of work that women had to do in the fields, since they engaged in agricultural labour and looked after children at the same time. Male workers, for their part, did not have to share the burden of childcare.

Sometimes parents could not find anyone to take care of their children and had to leave them at home unattended. In these situations, the bigger children who could sit up and walk were left to roam around on their own. As for infants aged between 6 months and a year, who had barely learned to crawl, parents often had no option but to use a piece of rope to tether them to the family's *kang*, the raised, heated platform that households used for sitting, entertaining and sleeping. Deng Fenqin recalled a horrible accident that occurred owing to this practice. Parents usually measured the rope based on the *kang*'s length, but if they did not measure it properly, 'when they came home the child

⁷⁹ '选出了老年大公无私, 看管孩子有经验的十人, 负责看管并合理的确定报酬': *ibid.*

⁸⁰ Interview with Deng Fenqin, 19 May 2018.

⁸¹ '能及时给孩子喂奶好, 母亲放心保姆能看管好, 挣下劳动日生活改善好': 'Zhongliangshe nü sheyuan haizi tuolei wenti jie jue de hao'.

had already been strangled to death'.⁸² Hershatler, in her study of rural women in Shaanxi province during the 1950s, recounts similar tragedies that occurred when family members had had to leave infants at home tethered to the bedside in similar situations.⁸³ But in most instances, mutual-assistance networks and collective childcare organizations kept families from having to leave children alone.

Communal dining halls, which fed everyone in the commune, were likewise intended to lighten women's workload. PRC leaders believed that the dining halls, formed in communes across China during the Great Leap Forward, would relieve most women of cooking duties and release their labour for collective production.⁸⁴ To save time and labour power for the summer harvest, in July 1957 the Dongshun co-operative, of which Dengjiabao was a part, borrowed cooking utensils from its members and set up a 'busy farming season dining hall' to prevent women from being bothered by household duties and ensure that single men could go to the fields. Each day over forty people ate in the dining hall, exchanging tickets for their meals and settling accounts afterwards. According to co-operative members, the dining hall had two main benefits:

- (1) Single men and women can participate in production on time and none of them are encumbered. (2) Collective eating and collective production; in families, men do not have to wait for the women and women do not have to wait for the men; whenever they arrive, they eat, which is extremely convenient.⁸⁵

Some women initially welcomed the communal dining halls, but most of these dining halls did not function effectively.⁸⁶ During the 'great war' to conserve water and soil in 1958, Deng Fenqin managed provisions in the collective dining hall.⁸⁷ Dining hall managers like her had to cope with acute supply shortages from the start. In addition to necessities like grain, oil and salt, in the words of a former deputy secretary in the Wushan county party

⁸² Interview with Deng Fenqin, 19 May 2018.

⁸³ Hershatler, *Gender of Memory*, 196, 249–50, 365.

⁸⁴ *Ibid.*, 251–8.

⁸⁵ '(1) 单身汉, 妇女按时参加了生产, 一个个不受拖累; (2) 集体吃饭, 集体生产, 一家人男不等女, 女不候男, 随到随吃, 十分方便': 'Dongshunshe de nongmang shitang' (东顺社的农忙食堂) [Dongshun Co-operative's Farming Season Dining Hall], *Wushan bao*, 21 July 1957, 2.

⁸⁶ Hershatler, *Gender of Memory*, 251–8.

⁸⁷ Interview with Deng Fenqin, 18 May 2018.

committee, 'The fuel problem was the biggest. There was no kindling to burn'. As a result, dining hall personnel had to cut down trees, including those planted for conservation purposes, to fuel the cooking fires.⁸⁸ Not only fuel, but also food, ran short. Three years of drought and inclement weather descended on Wushan from 1958 to 1960, and crops withered.⁸⁹ By diverting labour away from agriculture, the water and soil conservation campaigns only aggravated the grain shortages.⁹⁰ Faced with the unrealistic expectations of the Great Leap, leaders of the collective exaggerated their reports of crop yields, and the state requisitioned grain accordingly. In order to 'greet inspections and appraisals, launch satellites [by wildly overstating grain yields], and seize a red flag', some local cadres went so far as to take the seedlings growing in several fields and transplant them into a single parcel of land. But none of the grain could be harvested, so people went hungry.⁹¹ Speaking about Dengjiabao's widely heralded accomplishments during the Great Leap Forward, the former party branch secretary admitted, 'Most of it was exaggeration. It was bragging'.⁹² Statistics compiled by the Tianshui Water and Soil Conservation Experiment Station after the Great Leap Forward reported that per capita grain production in Dengjiabao, which peaked in 1956 at 385 kilograms, fell to only 196 kilograms per person in 1960 (see [Figure 1](#)).⁹³ As harvests declined and the state's requisitioning of grain continued unrelieved, food supplies in the collective dining halls dwindled. A day's work was supposed to entitle everyone in

⁸⁸ '燃料问题最大, 没柴烧': Zhang Keren (张克仁), 'Wushan xian gongshehua chuqi de gonggong shitang' (武山县公社化初期的公共食堂) [Collective Dining Halls in Wushan County during the Early Stage of Communization], *Tianshui wenshi ziliao*, xvi (2010), 184.

⁸⁹ Interview with Deng Fenqin, 7 Sept. 2019; Wushan xianzhi bianzuan weiyuanhui, *Wushan xianzhi*, 106.

⁹⁰ Yao, 'Wushan xian "dayuejin" pianduan jishi', 112; 'Tianshui shuibaozhan yijuliuyi nian Wushan Dengjiabao shuitu baochi diaocha jilu ben' (天水水保站一九六一年武山邓家堡水土保持记录本) [Tianshui Water and Soil Conservation Experiment Station, 1961 Wushan Dengjiabao Water and Soil Conservation Investigation Notebooks] (19 May 1961); Yellow River Conservancy Commission Archives, 2.1 2 T1-2-15, 102-3.

⁹¹ '迎接参观评比, 放卫星夺红旗': 'Tianshui shuibaozhan yijuliuyi nian Wushan Dengjiabao shuitu baochi diaocha jilu ben', 104.

⁹² Interview with Deng Fenqin, 18 May 2018.

⁹³ 'Dengjiabao shuitu baochi dianxing diaocha baogao', 17.

the commune to a day's worth of food, but it became impossible for dining halls to meet this obligation.

However, Deng Fenqin recalled that even during the horrific famine of 1959–60, when she oversaw operations in the dining hall, 'not a single person in Lijiaping ever starved to death', and population data from the village support her claim.⁹⁴ Unlike Dengjiabao as a whole, in which the population fell from 606 in 1957 to 560 in 1961, the population of Lijiaping did not decline at all during the 'three hard years' of famine (1959–61) that followed in the wake of the Great Leap (Figure 2).⁹⁵

But even if people did not starve to death, what they ate offered little nourishment, despite the best efforts of Deng Fenqin and the other women to keep everyone fed while simultaneously working in the fields and on conservation projects. Deng fed them whatever she could. In keeping with practice throughout much of China in 1960, everyone who came to the communal dining hall received two ladles of gruel made from beetroot and potatoes, staple foodstuffs of the day, along with a few pieces of yellow radish or other root vegetables. Nowadays, villagers informed me, not only would people never think to eat beetroot, they did not even bother to feed it to their pigs. 'At that time', Deng recalled, 'if you ate some coarse grain, buckwheat or bean flour and the like, [you] thought it was pretty good. There basically wasn't any wheat flour'.⁹⁶ As Lijiaping's male production team members explained to investigators from the central government's Tianshui Water and Soil Conservation Experiment Station in 1961, people 'dislike the dining halls because they do not get enough to eat. In food grain distribution, and perhaps in all other forms of distribution, there must be distribution based on labour. Food grain should be distributed to the household. [We] do not want dining halls'.⁹⁷

In an effort to get their families through this subsistence crisis, women scavenged for plants in the surrounding environment.

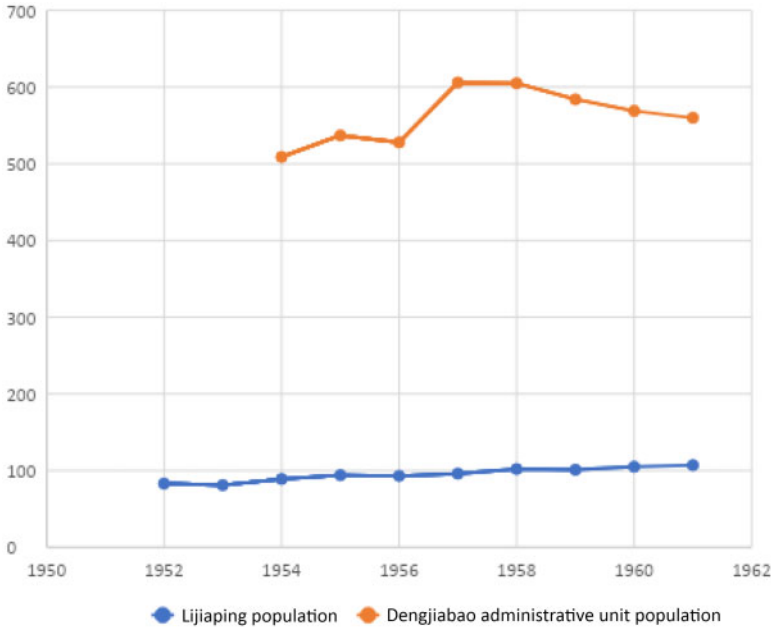
⁹⁴ Interview with Deng Fenqin, 19 May 2018.

⁹⁵ Lijiaping's population grew during the Great Leap from 96 in 1957 to 102 in 1958, 101 in 1959, 105 in 1960, and 107 in 1961: 'Tianshui shuibaozhan yijiuliuyi nian Wushan Dengjiabao shuitu baochi diaocha jilu ben', 93.

⁹⁶ Interview with Deng Fenqin, 19 May 2018. On food shortages in collective dining halls, see Hershatter, *Women and China's Revolutions*, 242.

⁹⁷ '对食堂有意见吃不饱。在口粮分配上或其他一切方面分配上都要按劳分配。口粮分配到家不要食堂': 'Tianshui shuibaozhan yijiuliuyi nian Wushan Dengjiabao shuitu baochi diaocha jilu ben', 104.

FIGURE 2
POPULATION IN LIJIAPING AND DENGJIABAO, 1952-1961



* Source: 'Tianshui shuibaozhan yijiuliuyi nian Wushan Dengjiabao shuitu baochi diaocha jilu ben' (天水水保站一九六一年武山邓家堡水土保持记录本) [Tianshui Water and Soil Conservation Experiment Station, 1961 Wushan Dengjiabao Water and Soil Conservation Investigation Notebooks] (19 May 1961); Yellow River Conservancy Commission Archives, 2.1 2 T1-2-15, 93; 'Dengjiabao shuitu baochi dianxing diaocha baogao', 16.

Around 1960, when grain grew critically scarce, Deng Fenqin went with other women into the mountains to pick wild vegetables, dig for roots, or strip tree bark as food substitutes. Willow buds, soaked in water for a few days to reduce their bitter flavour and then made into preserved vegetables, averted hunger but did not offer much nutritional content.⁹⁸ Because rural women gathered plants as food substitutes during the famine, female knowledge of plant species and their nutritional qualities

⁹⁸ Interview with Deng Fenqin, 19 May 2018. On food gathering organized by dining hall personnel, see Zhang, 'Wushan xian gongshehua chuqi de gonggong shitang', 184.

was essential if families were to make it through the disaster. Gender norms dictated that women, not men, had to keep their families alive, either by cooking or by gathering food, even when they also did communal labour.

The lack of childcare, food and fuel, combined with their greatly increased labour burden, took a great toll on rural women. For Deng Fenqin, the arduous work of scavenging for food coincided with the arrival of her first son, born in 1960. At the time, like Chinese mothers even today, she would normally have expected to eat unusually well and rest at home for a month after giving birth to regain her strength.⁹⁹ But famine made it impossible for her to observe this post-partum custom. As she related, 'In that year I gave birth to him. Even before the one-month lying-in period ended, I had already gone to the mountains to pick alfalfa'.¹⁰⁰ Since she went on to have several other children, Deng seems to have made it through this ordeal without serious reproductive health issues, but other rural women suffered miscarriages, uterine prolapse and other health problems in the late 1950s when they had to return to work too soon after giving birth.¹⁰¹ Like many women who lived through China's era of collectivization, Deng states that the strain of childbearing and the struggle to survive the famine left her with painful physically embodied memories that linger into the present: 'Because of that time, my legs hurt all the time now and I can't do any work'. And she repeated, 'Seven or eight days after giving birth I had to go out to gather wild vegetables'.¹⁰² Having to return to work so soon deeply hurt Deng's identity as a woman and mother, a trauma that she expressed in terms of her enduring bodily afflictions.

The Great Leap Forward famine also took a heavy toll on overworked and underfed men. According to Yang Jisheng, Wushan county suffered 11,374 famine-related deaths in 1958 (1.98 per cent mortality), 9,420 in 1959 (1.63 per cent mortality) and 28,253 in 1960 (a staggering 5.21 per cent

⁹⁹ On the practice of 'sitting the month', see Hershatter, *Gender of Memory*, 159–60; Suzanne Gottschang, 'Taking Patriarchy out of Postpartum Recovery?', in Santos and Harrell (eds.), *Transforming Patriarchy*.

¹⁰⁰ Interview with Deng Fenqin, 19 May 2018.

¹⁰¹ Hershatter, *Women and China's Revolutions*, 240; Hershatter, *Gender of Memory*, 139, 247.

¹⁰² Interview with Deng Fenqin, 19 May 2018.

mortality rate).¹⁰³ Other evidence indicates that men died in larger numbers than women. Based on data from Wushan during the famine, the male-to-female excess sex ratio that usually existed in rural China briefly shifted to an unusual female-to-male excess sex ratio from 1959 to 1962, which suggests a higher death rate for males than for females.¹⁰⁴ These data reflect a common phenomenon in the global history of famines in which male famine mortality typically exceeds that of females. The reasons for this female mortality advantage in times of famine remain poorly understood and controversial, but some experts believe it could be related to women's comparatively high reserves of body fat.¹⁰⁵ But just because fewer women died does not mean they suffered less. In addition to the trauma of losing male family members, if men passed away, surviving women would have to take on their workload.

Not surprisingly, given the famine's impact on women's health and well-being, female fertility appears to have decreased during the disaster. Although I have not found specific data on birth rates for Wushan county, Yang indicates that in Gansu province as a whole the birth rate fell from 3.15 per cent in 1958 to 1.93 per cent in 1959, 1.55 per cent in 1960 and 1.48 per cent in 1961.¹⁰⁶ The scattered available evidence suggests the decline is reflected in Wushan. According to a report from October 1961, between 1958 and 1960 the birth rate in the Mulin commune in Wushan county's Yanjing district fell by 61.2 per cent. Child mortality also appears to have increased. The report indicated that in two communes in Yanjing district, one child died in 1958, two in 1959

¹⁰³ Yang, *Tombstone*, 130.

¹⁰⁴ The proportion of males in Wushan's total population declined from 104.62 per cent (+12,959) in 1958 to 99.92 per cent (+564) in 1959, 98.38 per cent (-1,474) in 1960, 98.1 per cent (-1,777) in 1961, and 96.86 per cent (-2,954) in 1962 before increasing again to 103.15 per cent (+3,003) in 1963: Wushan xianzhi bianzuan weiyuanhui, *Wushan xianzhi*, 1114–15.

¹⁰⁵ Kate Macintyre, 'Famine and the Female Mortality Advantage', in Tim Dyson and Cormac Ó Gráda (eds.), *Famine Demography: Perspectives from the Past and Present* (Oxford, 2002); Cormac Ó Gráda, *Famine: A Short History* (Princeton, 2009), 98–101; John R. Speakman, 'Sex- and Age-Related Mortality Profiles during Famine: Testing the "Body Fat" Hypothesis', *Journal of Biological Sciences*, xlv, 6 (2013). On the Great Leap Forward famine, see Ren Mu and Xiaobo Zhang, 'Why Does the Great Chinese Famine Affect the Male and Female Survivors Differently? Mortality Selection versus Son Preference', *Economics and Human Biology*, ix, 1 (2011).

¹⁰⁶ Yang, *Tombstone*, 131.

and fourteen in 1960. Furthermore, the report found that in Wushan's Mulin, Hualin and Yuchuan communes children aged 7 and below made up 13.08 per cent of the population in 1961, a figure 12.1 per cent below the national average in 1959. The impact of the famine on child mortality is demonstrated most strikingly by the fact that children aged 3 and below made up a mere 3.08 per cent of the population in the three communes, 10.62 per cent below the national average in 1959.¹⁰⁷

Whether for men or for women, life in Dengjiabao did not improve until after 1961, when members of the collective began to 'reclaim wasteland on a large scale' and planted potatoes on newly cleared fields, which brought conservation work to a temporary halt. Following the dissolution of the communal dining halls, as Deng Fenqin added, the collective 'distributed to every household grain to be eaten separately, and from then on we started to make food for our own families to eat'.¹⁰⁸ Dengjiabao never regained the national prominence that it had held prior to the Great Leap Forward. After three years of famine, 'orchards had been destroyed, water and soil conservation engineering works were in disrepair, and tree groves had experienced serious damage'. Water and soil conservation in the village began to recover after 1962, when cadres oversaw renewed afforestation efforts.¹⁰⁹ Tree planting improved the availability of fuel, while the construction of ponds and small reservoirs during the 1960s and 1970s facilitated access to water.¹¹⁰ As a result, women did not have to trek long distances to acquire these resources. On the other hand, as in the

¹⁰⁷ [Gansu] sheng Wushan weisheng gongzuozu ([甘肃] 省武山卫生工作组) [[Gansu] Province Wushan Hygiene Work Group], *Wushan xian xia'er yingyang buliang zheng diaocha fangzhi baogao* (武山县小儿营养不良调查防治报告) [Wushan County Child Malnutrition Investigation and Prevention Report] (Lanzhou, Oct. 1961), 1.

¹⁰⁸ Interviews with Deng Fenqin, 19 May 2018, 7 Sept. 2019.

¹⁰⁹ '果园被毁, 水保工程失修, 树林遭到严重破坏: Bai Zhixian (白志贤), 'Mianhuai Lei Yuanzhen laoshi' (缅怀雷元贞老师) [Cherishing the Memory of Teacher Lei Yuanzhen], in Zhengxie Wushan xian wenshi weiyuanhui (ed.), *Wushan xian wenshi ziliao xuanji*, iii (1989), 93-4.

¹¹⁰ Luo Hongyuan (罗宏远), 'Dengjiabao cun shengtai huanjing bianqian de lishi jiaoxun' (邓家堡村生态环境变迁的历史教训) [The Historical Lessons of Changes in the Ecological Environment of Dengjiabao Village], *Tianshui shizhuan xuebao (ziran kexue ban)* (天水师专学报 (自然科学版)) [Journal of Tianshui Teacher Training College (Natural Science Edition)], xviii, 3 (1998), 27; Tianshui shi difangzhi bianweihui, *Tianshui shizhi, zhongjuan*, 1115.

1950s, it was the labour of female residents who worked on conservation projects that made these improvements possible.

By the 1980s, however, conservation infrastructure built during the first three decades of the PRC had decayed owing to damage and neglect. Dengjiabao's growing population cleared trees and other vegetation to cultivate steeply inclined gullies, and converted dams into fields. The area under cultivation expanded, but grain output declined from 350 *jin* per *mou* in the 1950s, to 280 in the 1970s, and 240 in the 1990s.¹¹¹ Springs and reservoirs dried up as well. Villagers turned to making percolation trenches, but they did not capture enough water to quench everyone's thirst, and residents devoted any time that they did not spend farming to trying to find water. As in the early 1950s, it became a common sight to see women lining up for hours at wells. Households invested in water cellars that used plastic tarpaulins to gather groundwater, but during dry weather villagers had to find money to hire cars, tractors or mule carts to transport water from the plains. As a result, wrote one observer, 'The farmers cherish water as if it were oil'.¹¹² Despite the extraordinary mobilization that had occurred in Dengjiabao, and all the hardship that its residents had endured, the vast conservation effort did not yield enduring benefits.

VII

CONCLUSION

Engaging with the gendered aspects of environmental change, I have argued that a full understanding of how the lives of women in rural China were altered during the Mao era requires sustained investigation of their everyday dependence on the environment, as well as how social, economic and political developments modified those relationships. Environmental degradation, as well as conservation, means something different for women than it does for men. As the history of water and soil conservation in Dengjiabao during the 1950s makes evident, these gender-differentiated experiences of environmental change have a direct bearing on women's everyday lives.

¹¹¹ 1 *jin* = 500 grams, 1 *mou* = 0.067 hectares.

¹¹² '农民们惜水如油': Luo, 'Dengjiabao cun shengtai huanjing bianqian de lishi jiaoxun', 27–8.

In north-west China, as in many other parts of the world, the traditional gendered division of labour dictated that women and girls did the daily work of gathering fuel and fetching water.¹¹³ The costs associated with depletion of these essential resources fell disproportionately on rural women, with the scarcity of biofuel and water meaning that women had to expend more time and effort to fulfil these basic needs. Thus, the water and soil conservation initiatives undertaken in Dengjiabao during the early 1950s, which made fuel and water more available, led to genuine improvements in the everyday lives of rural women.

Water and soil conservation would have been impossible without women's labour, and Deng Fenqin took evident pride in her contribution to these efforts. But what may initially have been an exciting new opportunity for women to join in collective labour outside the home became a burden. In Mao-era China, as in colonial Kenya and Tanzania, state-led conservation initiatives placed intensified pressure on women's work time.¹¹⁴ Even if they initially brought environmental improvements, by the mid 1950s the demands of conservation programmes had already started to weigh on rural women, who experienced this increased labour burden in gendered ways.

Despite the formation of collective childcare organizations and dining halls, mass mobilization for the water and soil conservation campaigns that were an integral part of the Great Leap Forward in Dengjiabao made it even more challenging for women to fulfil their domestic labour obligations. Furthermore, the diversion of labour to these large-scale conservation projects contributed to declining agricultural yields that culminated in a catastrophic subsistence crisis. When faced with this loss of food security, women tried desperately to avert starvation. Although men perished in larger numbers than women during the famine, the subsistence crisis reduced female fertility and birth rates, while also subjecting women to long-lasting physical ailments.

¹¹³ Bina Agarwal, 'Gender and Environmental Change', in *World Social Science Report, 2013: Changing Global Environments* (Paris, 2013), 93–4. See also Bina Agarwal, *Gender and Green Governance: The Political Economy of Women's Presence within and beyond Community Forestry* (Oxford, 2010), ch. 2. Examples from north-west China's Shaanxi province can be found in Hershatter, *Gender of Memory*, 42–3, 150, 187.

¹¹⁴ Steven Feierman, *Peasant Intellectuals: Anthropology and History in Tanzania* (Madison, 1990), 187–8; Mackenzie, *Land, Ecology and Resistance in Kenya*, 160, 201.

The history of water and soil conservation in Dengjiabao highlights the vital role that female labour has played in the remaking of China's environment. But that is not all. Environmental changes witnessed in China during the 1950s left their traces on the biophysical landscape, as well as on the bodies and minds of rural women. For this reason, understanding how the PRC party state's pursuit of social revolution and economic development during the Mao era was experienced in the everyday lives of rural women requires examination of how it affected women's gendered interactions with the environment.

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