

**SMALLHOLDER FARMERS' PERCEPTIONS OF POLICIES AFFECTING/  
INFLUENCING SUSTAINABILITY OF IRRIGATION PROJECTS IN ZVIMBA  
DISTRICT, ZIMBABWE**

**Oliver Matsika**

Zvimba Rural District Community Development, Zimbabwe

**ABSTRACT**

This study sought to establish the perceptions of smallholders on policies which affected/influenced the sustainability of donor-funded irrigation projects in Zvimba district, Zimbabwe. This study was motivated by the non-existence of a documented national irrigation policy in Zimbabwe, forty years after attaining its independence. Investigating smallholder perceptions of policies affecting/ influencing the sustainability of donor-funded irrigation projects required the use of the pragmatism philosophy. It enabled the use of both the qualitative and quantitative research designs in data collection and analysis. The data was collected from purposive sample of 25 irrigation project beneficiaries from Mukadzimutsva and Musarurwa irrigation projects, government officials and various government policy documents. These were considered to be rich sources of information. Survey, interviews and document analysis were used to gather the data. The study confirmed that Zimbabwe did not have a documented national irrigation policy forty years after independence. There were fragmented excerpts of policy issues on irrigation development and management in various government documents and Acts. Irrigation development policy influenced the sustainability of the donor-funded irrigation projects. The stakeholder non-involvement, fast track land reform programme, import substitution and user pays principle policies affected sustainability of irrigation projects. The unsustainability was aggravated by policy inconsistencies and conflict of interest between government officials and donors. The study recommended the adoption of a participatory irrigation policy formulation model which actively engage key stakeholders in the crafting of the national irrigation policy.

**Key Words:** Policy, Donor, Irrigation Projects, Sustainability, Community Development.

**1. INTRODUCTION**

**1.1 Contextual Analysis**

National policies were an important facet in any sector of the economy. Robbins and Coulter (1999) proffered that policies limited decision makers rather than explicitly affirmed what should or should not be done. Alternatively, Dye (2001) regarded policies as whatever the government decided to do or not to do. As such, the existence of policies was essential for organisations to accomplish the purpose for their establishment. Likewise, Zimbabwe as a country enacted policies regarding the modus operandi of its various stakeholders in different sectors of the economy. The policies gave insights of the parameters stakeholders needed to adhere to in carrying out their

mandate. However, there was no national irrigation development and management policy in Zimbabwe forty years after independence.

This study analysed smallholder perceptions of government policies affecting/ influencing the sustainability of donor-funded irrigation projects in Zvimba district. These policies were either documented or undocumented. The existence of documented national policy enabled stakeholders to be in sync with government’s vision in various economic sectors, such as irrigation projects development and management. However, the Zimbabwe government had failed to put together a comprehensive national irrigation development and management policy at the time of this study (2019). Instead, various policy issues relating to irrigation development and management were found in the Zimbabwe Comprehensive Agricultural Policy Framework (2012 – 2032), the National Water Policy Framework of 2012 and various government Acts. These policy issues positively or negatively affected the operations of the donor-funded irrigation projects. Tafesse(2003) cited in Mujere and Madzimavi (2015) confirmed that government policies on land tenure and water allocation created an un-conducive environment for the successful operations of smallholder irrigation schemes. In some instances, donors withdrew or re-directed their much-needed funds from the irrigation development and management sector. This led to the collapse of many irrigation projects including those in Zvimba district. For example, seventy-one percent of the seven donor-funded projects had collapsed at the time of research (2019), (see Table 1). The collapse dealt the district a severe blow in terms of the attainment of the Millennium Development Goal 1 (MGD 1).

**Table 1: Functioning and Non-functioning Irrigation projects in Zvimba District.**

Irrigation Status	Frequency	Percentage
Functioning	2	28.6
Not functioning	5	71.4
Total	7	100

**Source:** Researchers’ own

Many theories were proffered regarding the reasons for the collapse of irrigation projects ranging from poor management, inconsistent policies, misappropriation of funds to mention just but a few. For instance, the Swedish head of development cooperation in Zimbabwe was quoted in a local daily newspaper, saying “We do not accept that our money that comes from the taxpayer way back in Sweden is diverted to anywhere, where it is not supposed to be” (The Herald Online 17 May 2017). In light of that, this study sought to analyse the perceptions of smallholder irrigation farmers on how existing government policy issues affected/ influenced the sustainability of donor-funded irrigation projects in Zvimba district against a background of large investments ploughed into them.

**1.2 Statement of the Research Problem**

There was lack of a coherent government vision, objectives and strategies in irrigation development and management in Zimbabwe. This was due to the non-availability of a national irrigation development and management policy 40 years after independence. Policy issues

relating to irrigation development and management were found in government documents such as the Zimbabwe Comprehensive Agricultural Policy Framework (2012 – 2032), the National Water Policy Framework of 2012 and Department of Water and Rural Development departmental document. In addition to that, water issues relating to irrigation development and management activities were stated by various Acts, for example, the Water Act of 1998, Zinwa Act of 1998 and the Environmental Management Act. This situation was unacceptable in a 40-year old independent state dependent on agriculture as the backbone of its economic survival.

### 1.3 Research Questions

This study answered the following research question:

1. Which policies affected/ influenced donor-funded smallholder irrigation project in Zvimba district?
2. How did the policies affect/ influence the sustainability of donor-funded irrigation projects in Zvimba district?
3. What irrigation development and management policy strategies could promote sustainability of irrigation projects in Zimbabwe?

### 1.4 Research Objectives

This study sought to:

1. Identify policies which affected/ influenced donor-funded irrigation projects in Zvimba district.
2. Deduce how each of the policies affected/ influenced the sustainability of donor-funded irrigation projects in Zvimba district.
3. Suggest irrigation development and management policy strategies to promote sustainability of irrigation projects in Zimbabwe.

### 1.5 Significance of Study

This study sought to contribute irrigation development and management policy strategies to ensure sustainability of donor-funded irrigation projects in Zvimba district. In that regard, it took note of issues which could be avoided at the policy formulation level to ensure sustainability of irrigation projects in Zvimba. This study also contributed literature and insights on policies, and suitable policy formulation and management strategies to ensure the sustainability of donor-funded irrigation projects in Zvimba district.

## 2. LITERATURE REVIEW

### 2.1 Policies and donor-funded irrigation projects sustainability

Policies were important in dictating how the day-to-day activities of donor-funded irrigation projects should be undertaken to ensure the successful implementation of a chosen strategy. As such, David (1999:221) defined a policy as “specific guidelines, methods, procedure, rules, forms, and administrative practices established to support and encourage work towards stated goals.” Robbins and Coulter (1999) concurred with David (1999) by saying that policies established parameters for making decisions. In summary, a policy is, whatever the government decide to do or not to do, (Dye, 2001). In that regard, policies were therefore effective

instruments for implementing irrigation development and management activities in Zvimba district.

However, David (1999) further argued that a policy did not specifically state what should or should not be done. In that regard, both donors and government needed to operate within set boundaries, constraints and limits during the development and management of donor-funded irrigation projects. In view of the foregoing discussion this section analysed some colonial era and post-colonial era irrigation development and management related policies to determine their impact.

The earliest adopted colonial government policy on irrigation development was of non-involvement, (Rukuni, 1986). The government chose not to interfere in the irrigation development and management activities of the indigenous people. Thus, the indigenous people had the autonomy to run their irrigation projects as the owners of the land, (Matsika and Chinamasa, 2020). They developed the irrigation projects in the manner they wanted and understood using their own resources. The autonomy also enabled missionaries to be actively involved in the development and management of irrigation projects of the indigenous people. From 1912 to 1927, the missionaries adopted a policy of “incorporation into indigenous agriculture,” (Roder, 1965 cited in Rukuni, 1986: p. 33). The policy accorded the missionaries the opportunity to learn how the indigenous people undertook their irrigation activities. The policy was sustainable as the local people were able to develop and manage successful irrigation projects, (Rukuni, 1986).

However, the government changed this policy of non-involvement in 1927, (Rukuni, 1986). Probably the government had observed the successes scored by the missionaries during the period of incorporation into indigenous agriculture. The government adopted the engagement of an agriculturalist policy which saw the appointment of Emery Alvord to provide expertise to the indigenous people on irrigation farming, (Matsika and Chinamasa, 2020). The appointment of an agriculturalist was meant to literally remove the missionaries from engaging in indigenous people’s irrigation activities. Rukuni (1986) revealed that the government allowed the local people to continue having more autonomy on their irrigation activities. This enlisted the sustained indigenous people’s cooperation, (Matsika and Chinamasa, 2020). Thus, the government continued with the missionaries’ policy of incorporation into indigenous agriculture. Alvord commended the results of the engagement of an agriculturalist policy. However, there was no tangible evidence to prove the success of the engagement of an agriculturalist policy, (Rukuni, 1986).

In 1933 the government dumped the continuation of the policy of incorporation into indigenous agriculture by compulsorily acquiring the management of Mutambara irrigation project, (Rukuni, 1986). It began contributing funds, resources and introduced compulsory crop rotation, (Matsika and Chinamasa, 2020). The government support ensured that farmers were able to meet their inputs requirements as well as improve their irrigation infrastructure. The farmers opposed these initiatives because they wanted more say or control on the plots they had constructed through their own communal effort before the 1930s, (Matsika and Chinamasa, 2020). The compulsory

of acquisition policy created serious conflict between the government and the indigenous people. The communities withheld their support to the government's initiatives thereby affecting the sustainability of Mutambara irrigation project.

As if the take-over of Mutambara was not enough, the government went further to compulsorily re-organize other projects in Manicaland. The government introduced water rents payment and compulsory crop rotation policies (Hughes 1974 cited in Rukuni 1986). The farmers were expected to pay rents for using water to irrigate their crops. The farmers resisted the payment of water rent for the use of water, a God-given natural resource, (Matsika, 2020). They no longer had any say on what was to be grown and where to grow the crops due to the compulsory crop rotation policy. The policies of compulsory re-organisation, water rents and crop rotation resulted in severe conflicts with the indigenous people who wanted autonomy on their irrigation projects (Rukuni, 1986). Thus, the productivity of the Manicaland projects adversely affected.

However, Mutimba (2013) argued that donors had legitimate interests in the autonomy of action, transparency and predictability of aid flows. One might argue that the water rents and crop rotation policies were noble government ideas. For instance, the water rents would help to raise funds for future operation and maintenance costs, whilst crop rotation improved crop productivity. Compulsory land acquisition policy gave impetus to the later fast track land reform programme in the early 2000s. The conflicts which emanated from the compulsory re-organisation of irrigation projects, water rents and compulsory crop rotation brought animosity between the government and farmers. The farmers' cooperation was forfeited (Mombeshora, 2003), thereby treading on the sustainability of the donor-funded irrigation projects.

According to Rukuni (1986) the government adopted another policy of constructing irrigation projects for smallholders in 1950. Mosello, *et al.* (2017) stated that the Rhodesian government developed irrigation schemes in Natural Regions IV and V to resettle displaced black farmers from land designated for white commercial farmers in Natural Region I, II and III. The resettlement process was enforced through the amended 1950 Land Apportionment Act, (Rukuni, 1986). The construction of irrigation projects policy removed the burden of developing infrastructure from the poor indigenous people. As such, this was a sustainable development policy as the farmers would reserve their own funds for other irrigation activities.

Following the condemnation of the donor-funded irrigation projects through the 1961 Irrigation Policy Committee Report, government ceased the construction of new irrigation projects. The construction of new irrigation projects ceased between 1960 and 1968, (Rukuni, 1986). This cessation of construction of new irrigation projects policy had grave consequences on the indigenous people. For example, the people experienced hunger due to mild droughts in 1960, 1964, 1965 and a severe drought in 1968, (Nangombe, 2013). Thus, most of the government's pre-colonial policies on irrigation development and management generally affected the sustainability of the donor-funded irrigation projects in Rhodesia.

The post-independence era witnessed agriculture contributing 19% of the country's GDP, (Nangombe, 2013). Irrigation was a sub-sector under agriculture. Thus, its contribution was also

within the 19% of the GDP. According to Mosello, *et al.* (2017) irrigation farming became a crucial component of Zimbabwe's economic and political development.

Policies in Zimbabwe were driven by "politics and ideology, macroeconomic conditions, climate and environmental concerns and foreign assistance," (Mosello, *et al.* 2017: p. 36). Zimbabwe adopted the substitution development policy. The substitution development policy saw the introduction of tough controls through tariffs, foreign exchange allocation and growth with equity, (Tekere, 2001). Mosello, *et al.* (2017) concurred with Tekere (2001) that the infant agricultural industry was protected with tough controls through tariffs, foreign exchange allocation and growth with equity. On the agricultural sector, government adopted several policies such as the dual agricultural system, government price controls, and heavy biases towards black small-scale and communal farmers, subsidized inputs, protected marketing and national food security, (Mosello, *et al.* 2017). Tekere (2001) argued that whilst the substitution development policy appeared to be viable, it created serious challenges for the economy such as low productivity, shortage of foreign currency resources and market distortions.

The price control policy was imposed on inputs such as fertilizers, pesticides, herbicides and seeds, (Mosello, *et al.* 2017). Literature revealed that agricultural inputs disappeared from the shelves and found their way into the black market. As a result, the black market prices were beyond the reach of the smallholder irrigation farmers. They could not afford to buy the needed agricultural inputs thereby severely affecting their irrigation farming operations.

The post-independent Zimbabwe continued to use the 1976 Water Act. The 1976 Water Act denied the majority of Africans the right to access water for productive purposes (Mtisi, 2011). According to Mtisi (2011) water was classified into either private water or public water. Private water was vested in the owner of the land on which it was found whilst public water was vested into the hands of the State, (Mtisi, 2011). The majority of the smallholder irrigation farmers found themselves in a quandary of failing to access water for productive irrigation purposes.

The worsening economic situation forced the government to abandon the import substitution development policy. Mosello, *et al.* (2017) stated that government then, introduced the Economic Structural Adjustment Programme (ESAP) in 1991. ESAP resulted in the removal of controls and government funding in the form of subsidies on agricultural inputs, including water, (Mombeshora, 2003, Mosello, *et al.* 2017). Unfortunately, the removal of subsidies on agricultural inputs did not yield positive results, (Tekere 2001). The situation was aggravated by the extreme drought of 1992, (Nangombe, 2013). For example, Mombeshora (2003) argued that the ESAP policy triggered price increases of farm inputs and electricity charges for pumping water for irrigation purposes. Many smallholder irrigation projects failed to afford the new price increases, (Mombeshora, 2003). The sustainability of donor-funded irrigation projects suffered as a result.

Another policy, the fast track land reform programme came on board during the 2000 – 2002, Mosello *et al.* (2017). The policy witnessed land seizures from the country's 4 500 commercial farmers by landless Zimbabweans between 2000 and 2003, (Mosello *et al.*, 2017). In retaliation, Mosello *et al.*, (2017) revealed that NGOs, bilateral and multilateral institutions

reduced or withdrew their financial support on all governmental development programmes and projects- irrigation development and management included. This was a severe sustainability blow towards donor-funded irrigation projects.

According to the World Bank Water (2013) the Zimbabwe government enacted the national water policy in December 2012. The national water policy was driven by the need to redress colonial injustices in the water sector and to align to the global discourse of integrated water resources management (IWRM), (World Bank Water, 2013). The water policy cushioned the Water Act of 1998. The Water Act (1998) Section 3 asserted that all water was in hands of the State President. The national water policy section 4(1) proclaimed that no person in Zimbabwe was entitled to ownership of any water. This was a positive development as Makurira and Viriri (2017) had observed that Zimbabwe had no national water policy until 2013. Smallholder irrigation farmers became able to freely use the water for irrigation activities.

The national water policy promoted equitable, sustainable utilization of water, more participation of stakeholders (through catchment area committees and sub-catchment committees) and endorsed the user pays principle, (Makurira and Mugumo, 2005, World Bank Water, 2013). Furthermore, Makurira and Mugumo (2005: p. 167) observed that the national water policy promoted sustainable and efficient utilisation of water and environmental protection. The benefits of the national water policy spilled to irrigation development and management. However, Tom and Munemo (2015) argued that the national water policy had gaps between the policy and its implementation such as the aim, objectives and principles of the policy which were stated in qualitative terms. In addition to that, the enactment of the national water policy in retrospect overlooked the need to synchronize the existing Acts related to water use, (World Bank Water, 2013).

It was also fascinating to note that Zimbabwe had no national irrigation policy in 2016 when the Ministry of Agriculture, Mechanisation and Irrigation Development spearheaded the development process with the assistance of FAO, (Mosello, *et al*, 2017). This was despite the fact that the government had long acknowledged the importance of irrigation farming towards supplementing the rain-fed agricultural crop yields. Unfortunately, the adoption of the draft policy by government seemed to have died a natural death as there was no evidence of the existence of an irrigation national policy at the time of this study (2019). As a result, irrigation farming in Zimbabwe was like a ship at sea without radar. It was against this background that the study sought to establish the perceptions of the smallholder irrigation farmers on the policies which affected/ influenced the sustainability of the donor-funded irrigation projects.

### **3. RESEARCH METHODOLOGY**

#### **3.1 Research Design**

This study used the pragmatism research philosophy which allowed the researcher to employ whatever method which worked within the precepts of research to understand the perceptions of smallholder irrigation farmers of policies which affected/ influenced the sustainability of donor-funded irrigation projects in Zvimba district. The researcher had the freedom to use different data

collection instruments and methods as well as data analysis procedures he felt to be appropriate. The researcher carried out surveys, interviews and document analysis.

### 3.2 Population and Sampling

The study areas were Musarurwa irrigation project in Ward 1 and Mukadzimutsva irrigation project in Ward 3. The sampling frame for the current study included project beneficiaries, government officials, government policy documents and related research documents. The population comprised of three hundred and sixty people as well as appropriate, related research documents. Walliman (2011) observed that the sampling frame included groups within the population that were of interest to the researcher. These were available rich sources of data and were willing to participate in the study.

The sample of this study consisted of twenty-five participants, identified policy documents and related project research report documents. According to Patton cited in Marshall *et al.* (2013) there were no rules for sample sizes in pragmatism oriented studies as it depended on what the researcher wanted to know, the purpose of the inquiry, what was at stake, what was useful, what was credible and what could be done with available time and resources.

Purposive sampling was used in this study. The researcher deliberately selected items for the sample, thereby, making his choice concerning the items for this research supreme. According to Pandey and Pandey (2015) purposive sampling had several merits amongst them the use of the best available knowledge concerning the sample subjects, better control of significant variables and sample group data could easily be matched.

In this study, the researcher was the main data collection instrument, (Nyarawanda 2003; Chisaka 2001 cited in Chinamasa, 2014). The researcher carried out the survey and conducted face-to-face interviews. The document analysis enabled the researcher to analyse how various government policies affected/ influenced the sustainability of donor-funded irrigation projects development and management in Zvimba district. The use of the survey, interviews and document analysis helped to triangulate the data on how existing government policies affected/ influenced the sustainability of donor-funded projects in Zvimba district in the absence of a comprehensive national irrigation development and management policy.

### 3.3 Data Collection Methods

The data for this study was collected using the survey, interviews and document analysis methods. The researcher developed and administered the questionnaires. Also, the researcher developed the interview and document analysis guide to use during the collection of data. In order to identify the policies, I adopted the beliefs, attitudes, and other views on development and management of donor funded irrigation projects shared by the government in Zimbabwe. Furthermore, I tried to be invisible maintaining objectivity as outsider and raising questions about the culture of these institutions which wouldn't occur to members of that culture.

### 3.4 Data Analysis and Interpretation



I checked for completeness and answering of all the key themes of the questionnaire. The next activity saw me collating findings from the questionnaires, interview schedules and document analysis schedules. The foregoing processes reduced the collected data to facilitate analysis. I identified the impact of each of the emerging policy issues affecting/ influencing the development and management of donor funded smallholder irrigation projects in Zimbabwe as either positive or negative. Reliability and validity of the study results were ensured by participants who witnessed the formation and life of Musarurwa and Mukadzimutsva irrigation projects and use of vernacular language to enhance communication.

#### 4. FINDINGS AND DISCUSSIONS

##### 4.1 Demographic data of the Participants

**Table 1: Participants' Age Distribution (N = 25)**

Age group	Frequency	Percentage
41 – 50 years	6	24
51 years and above	19	76
<b>Total</b>	<b>25</b>	<b>100</b>

Table 1 showed that the majority of the participants (76%) were 51 years and above old. However, all the participants were 41 years and above, implying that they were all mature, reliable rich sources of information. The ages also showed that, participants were above the age of physical fitness for manual work. Thus, the policy of not adhering to the age limit of 50 years set up by Department of Rural Development (DERUDE) affected the sustainability of the irrigation projects in Zvimba district.

**Table 2: Distribution of Project beneficiaries' experience by gender (N = 25)**

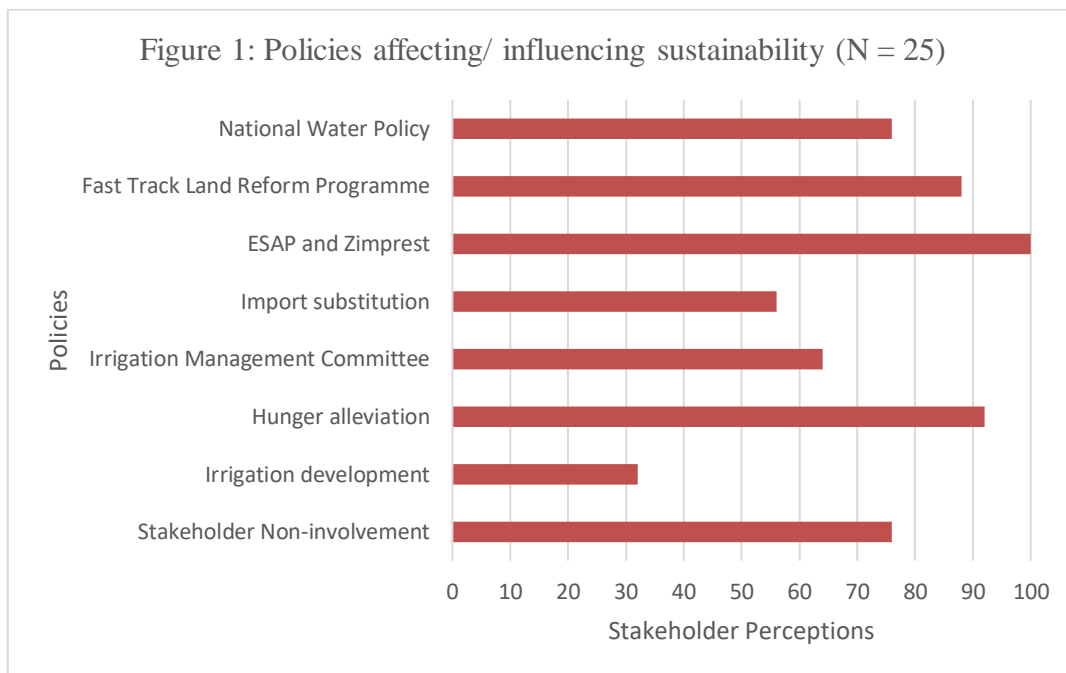
Gender	Experience in years				Totals
	0	1	2	3 and above	
Female	0	0	0	2	<b>2</b>
Male	5	4	4	10	<b>23</b>
<b>Total</b>	<b>5</b>	<b>4</b>	<b>4</b>	<b>12</b>	<b>25</b>

The majority of participants, 23 out of 25 or 92%, who were also the irrigation garden owners, were men whilst 2 out of 25 (8%) were female. This gender inequality distribution could be accounted for by traditional beliefs which did not allow females to possess land. In addition to that, the aggressiveness of men in political activities could have given them an edge over the women. In view of that the policy of non-adherence to gender equality in possessing land affected the sustainability of the irrigation projects in Zvimba district.

Furthermore, the majority of 12 out of 25 (48%) had three years and above of vegetable farming experience. Alternatively, 5 out of 25 (20%) had no experience in farming. Experience was an

important factor in establishing the availability of skilled human resources. Those participants with previous experience were expected to help the non-experienced irrigation farmers. Of interest was one of Mukadzimutsva participant who said he had 38 years of prior irrigation experience prior to becoming a member the irrigation project. This participant was the chairman for the irrigation project and was respected by other irrigators for his expertise, (Matsika and Chinamasa, 2020). In view of that, experienced irrigators were readily available to help the non-experienced to acquire the relevant skills. The availability of irrigators with experience in farming influenced the sustainability of donor-funded irrigation projects in Zvimba district.

**4.2 Policies and sustainability of donor-funded smallholder irrigation projects**



The findings in figure 1 showed that the majority of the participants (76%) believed that the non-involvement of stakeholders’ policy affected the sustainability of the donor-funded projects in Zvimba district. The majority of the farmers viewed the irrigation projects as government owned. FAO(2000) confirmed that the farmers who were not involved in the project initiation phase viewed them as government owned. The smallholder irrigation farmers were demotivated by not being involved during the initiation phase. Government representatives had only sent its representatives to inform them of the decision to start up irrigation projects in their areas. This caused much resistance among the intended beneficiary communities. The then District Administrator had to intimidate the community that they could not refuse with the identified land as they did not possess its title deeds, (Matsika, 2020). This was an indication that the irrigators had refused to buy-in the irrigation projects. As such, the farmers failed to develop a sense of ownership of these irrigation projects, which affected the sustainability of the donor-funded irrigation projects. FAO (2000) and Kadigi, *et al*, (2012) concurred that farmers at Ngezi-

Mamina, Mambanjeni and Oatlands irrigation schemes in Zimbabwe were unenthusiastic to take over responsibility of running and maintaining the projects. Their major reason for refusal was that they were not involved during initiation of the irrigation projects. It was imperative for the government to involve the intended farmers from the project needs analysis phase throughout the various stages of the projects life. On the other hand, 24% said the non-involvement policy influenced positively the projects' sustainability.

Figure 1 indicated that most farmers (68%) agreed that the irrigation development policy influenced positively the development of donor-funded irrigation projects in Zvimba district. The development of irrigation projects was initiated by the government, (Matsika and Chinamasa, 2020). The majority irrigators revealed that it was the irrigation development policy which ushered them into smallholder irrigation farming. In addition to that, they said the development of irrigation projects enabled them to transform their livelihood. They were able to develop their homesteads; buy livestock; and meet their children's school requirements; to produce supplementary, nutritious food and to electrify their homesteads, (Matsika, 2020). Mpala (2016) concurred with Matsika (2020) that small-scale irrigation farming enabled the farmers to secure supplementary food, create employment, generate income, acquire agricultural productive assets namely scotch carts, cultivators and livestock. On the other hand, a minority 32% refuted the influence of the irrigation development policy. They argued that they were a number of identified irrigation projects which had died a natural death such as the Matsvitsi and Hunyani River irrigation projects. There was need for the government to conduct irrigation project assessments to ascertain the effectiveness of the irrigation development policy. The process would help in the development of a national irrigation development and management policy.

The findings in figure 1 highlighted that the majority of the farmers (92%) disputed that the irrigation projects were established to alleviate hunger. The farmers had conflicting views on the purposes for establishing the irrigation projects. Whilst the irrigation projects were developed to alleviate the effects of 1982-83 and 1992 droughts for Mukadzimutsva and Musarurwa respectively (Zawe, 2006), the irrigators revealed the reasons included donor initiative, income generation, supplementary food production, employment creation, improving livelihoods and utilising abundant water in the district's rivers, (Matsika, 2020). This was an indication that the government and the farmers did not share a common purpose of the reasons why the irrigation projects were developed. FAO (2000) stated that governments established irrigation projects to provide farmers with a source of self-sustenance implying that they would be able to generate income, produce supplementary food, create employment and improve their livelihoods. There was need for both the government and irrigators to share a common purpose on why the irrigation projects were established. Thus, lack of a shared common purpose between the donor and beneficiaries affected the sustainability of the donor-funded irrigation projects in Zvimba district.

Figure 1 revealed that the majority of the irrigators (64%) concurred that the introduction of the Irrigation Management Committees policy affected the sustainability of irrigation projects in Zvimba district. The IMCs had no expertise in management of irrigation projects, as they had no prior training. They were a mixed bag of illiterate and literate members, (Matsika and Chinamasa,

2020). Most of the challenges the farmers encountered at irrigation project level were attributed to the IMCs. For instance, the farmers complained of lack of a shared vision, poor maintenance of equipment, failure to acquire inputs in time and dictatorial leadership tendencies (Matsika, 2020). Makadho (1990) highlighted that there was need to capacitate IMCs in terms of management and organizational skills from the early stages of irrigation projects development. However, 36% said that the policy contributed sustainably to donor-funded projects. These believed that the decentralization of irrigation projects management to IMCs was a positive development as it empowered them to run their own affairs with little or no outside interference. Matsika and Chinamasa (2020) confirmed that the introduction of IMCs generated project commitment and ownership among the farmers as well as enabled them to be involved in the decision-making processes.

Figure 1 also revealed that most farmers (56%) were in agreement that the import substitution policy also contributed to the unsustainability of the donor-funded irrigation projects. Price controls were introduced on various agricultural inputs. The agricultural inputs disappeared from the shelves into the black market and there was an upsurge of electricity load shedding. The black market prices of inputs skyrocketed and were unaffordable to most of the farmers, (Matsika, 2020). However, 44% of the irrigators felt it was a positive development as it introduced price controls on agricultural inputs, making them affordable. There was need to enact a policy which ensured that agricultural inputs became available for the generality of the farmers, hence ESAP came on board.

In figure 1, the findings highlighted that all the participants said the policies under ESAP and ZIMPREST had a negative effect on the sustainability of the donor-funded projects. According to the farmers ESAP caused the prices of agricultural inputs to rise to unprecedented levels, (Matsika and Chinamasa, 2020). Mombeshora, (2003), Mosello, *et al.* (2017) confirmed that ESAP resulted in the removal of government controls and subsidies on agricultural inputs, including water. As such, Mombeshora (2003) further charged that the policy triggered price increases of farm inputs and electricity charges for pumping water at irrigation schemes. Tekere (2001) added that the economy remained depressed with high interest rates. Coupled with the extreme drought of 1992, the irrigation sector severely suffered the brunt of ESAP and ZIMPREST policies.

Figure 1 further showed that a majority of the participants (88%) emphasised that the fast track land reform programme negatively wedged the sustainability of the donor-funded irrigation projects in Zvimba district. The farmers revealed that government support dwindled to almost zero, as it had to redirect the limited resources to a wider area following the departure of donors or redirection of donor funding to other programmes. In addition, agricultural inputs disappeared from the traditional suppliers into the black markets. The inputs became unaffordable, thereby affecting their productivity levels and eventually their incomes. The procurement of inputs became very challenging for the farmers, (Mosello, *et al.* 2017). Furthermore, many of the farmers' relatives who used to financially support them in times of needy could no longer afford to do so due to loss of their employment. Bond (2000) in Mosello, *et al.* (2017) confirmed the high unemployment levels due to company closures. Government should adopt

bold economic strategies with the capacity to revamp smallholder irrigation development and management.

The findings in Figure 1 revealed that most of the farmers (76%) bemoaned that the national water policy was unsustainable, whilst a minority of 24% said the policy positively influenced the projects' sustainability. Makurira and Mugumo (2005) and the World Bank Water (2013) highlighted that the national water policy introduced the user pays principle. The irrigators paid for the use of water to Zinwa, an authority established through the Zinwa Act (1998). Surprisingly, the rates were charged at commercial rates, when the government had developed the projects for self-sustenance. The irrigators found the user pays principle unsustainable. Some of the farmers believed they should not pay for water use, as it was a God-given natural resource, (Matsika and Chinamasa, 2020). On the other hand, the Zimbabwe National Water Authority (ZINWA) was inefficient in the supply of water and detached from the farmers, (Mutambara, *et al.* 2017). These water rates reduced Zinwa's income. Zinwa needed to improve on its service provision mandate, as well as holding awareness meetings with the farmers on the merits of the user pays principle and encouraging them to pay their dues.

## 5. CONCLUSION

The smallholder irrigation project farmers in Zvimba district perceived that their activities were affected by various policies, some of which did not fall directly under irrigation development and management, for example, ESAP and ZIMPREST policies. This resulted in policy inconsistencies and policy shifts which affected most of the donor-funded irrigation projects in Zvimba district. This revealed that Zimbabwe had no comprehensive national irrigation policy, forty years after attaining its independence. The sustainability of donor-funded irrigation projects was negatively affected by this lack of a national irrigation policy. From this study: policy inconsistencies, stakeholder involvement, conflict of interest between government officials and donors, fast track land reform programme, user pays principle affected the sustainability of irrigation projects. As a result, the development of the communities in Zvimba district was negatively affected. We recommend that government adopts a participatory irrigation policy formulation model engaging various irrigation stakeholders to formulate a comprehensive national irrigation policy.

## REFERENCES

- Chinamasa, E. (2014). *Experiences of Day Scholars in Boarding Schools in Zimbabwe: Implications for Educational Management*. Journal of Education and Practice. 5(5), pp 31-38.
- David, F. R. (1999). *Strategic Management: Concepts and Cases*. Upper Saddle River. Prentice Hall.
- FAO. (2000). *Socio-economic impact of smallholder irrigation in Zimbabwe. Case studies of ten irrigation schemes*. FAO-SAFR. Harare, Zimbabwe. p.142.
- Hunt, A. F. (1958). *Manicaland irrigation schemes: An economic investigation*. Department of Agriculture, Southern Rhodesia.
- Kadigi, R. M. J., Tesfay, G., Bizoza, A. and Zinabou, G. (2012). *Irrigation and Water Use Efficiency in Sub-Saharan Africa*. GDN Agriculture Policy Series. Briefing Paper Number 4, pp 1-8.

- Makurira, H. and Mugumo, M. (2005). *Water Sector Reforms in Zimbabwe: The Importance of Policy and Institutional Coordination on Implementation*. Harare. African Regional Workshop on Watershed Management. pp 167-174.
- Makurira, H. and Viriri, N. (2017). *Water Permit Systems, Policy Reforms and Implications for Equity in Zimbabwe*. International Water Management Institute (IWMI).
- Marshall, B. and Cardon, P. W. (2013). *Does Sample Size Matter in Qualitative Research? A Review of Qualitative Interviews in Information Systems Research*. Journal of Computer Information Systems. pp 11-22.
- Matsika, O. (2020). *An Evaluation of the Sustainability of Donor-funded Irrigation Projects: Case of Zvimba District in Zimbabwe*. Supershine University.
- Matsika, O. and Chinamasa, E. (2020). *Factors Influencing Sustainability Regression for Donor-Funded Projects: Case of Kutama Irrigation Scheme, Zimbabwe*. International Journal of Education Humanities and Social Science. 3(2), pp 228-244.
- Mombeshora, S. (2003). *Water and Livelihoods: The Case of Tsovani Irrigation Scheme in Sangwe, Southeastern Zimbabwe*. Brighton. Sustainable Livelihoods in Southern Africa Programme.
- Mosello, B. Oates, N. and Jobbins G. (2017). *Pathways for irrigation development: policies and irrigation performance in Zimbabwe*. Harare. Fanrpan.
- Mpala, C. (2016). *The Socio Economic Impact of Smallholder Communal Irrigation Projects: A Case Study of Tshongokwe Smallholder Irrigation Scheme in Lupane District in Matabeleland North Province, Zimbabwe*. International Journal of Social Science and Economic Research. 01(07), pp 938-963.
- Mujere, N. and Madzimavi, D. (2015). *Challenges Affecting Irrigation Water Supply at Nyanyadzi Smallholder Irrigation Scheme in Zimbabwe*. www.researchgate.net. p. 1-11.
- Mutimba, E. M. (2013). *Determinants of Sustainability of Donor Funded Projects: The Case of Selected Projects in Ganze Constituency in Kilifi County, Kenya*. University of Nairobi. Mtisi, S., (2011). *Water Reforms during the crisis and beyond: Understanding policy and political challenges of reforming the water sector in Zimbabwe*. Working Paper 333. London. Overseas Development Institute.
- Nangombe, S. S. (2013). *Drought conditions and management strategies in Zimbabwe*. Harare. Meteorological Services Department. Accessed 15/02/18.
- Pandey P. and Pandey M. M. (2015). *Research Methodology: Tools and Techniques*. Buzau. Bridge Center.
- Robbins, and Coulter (1996). *Management*. Englewood Cliffs. Prentice Hall.
- Rukuni M. (1986). *The Evolution of Irrigation Policy Zimbabwe; In 1900-1936: Water Management Synthesis I Project WMS Report 63*. USAID.
- Tekere, M. *Trade liberalisation under Structural Economic Adjustment – Impact on Social Welfare in Zimbabwe. Paper for the Poverty Reduction Forum (PRF). Structural Adjustment Program Review Initiative*. SAPRI. Final Draft. April 2001. Accessed 15/02/18.
- The World Bank Water. (2013). *Zimbabwe's new National Water Policy: Responding to Challenges to create a Foundation for Sustainable Growth*. The Zimbabwe Water Forum. Accessed 06/10/19.

- Tom, T. and Munemo, E. (2015). *Republic of Zimbabwe National Water Policy: A Desk Review of the Gaps between the Policy and its implementation*. International Journal of Public Policy and Administration Research. 2(3), pp. 60-72.
- Walliman, N. (2011). *Research Methods – the basics*. London. Routledge Taylor and Francis Group.
- Zawe, C. (2006). *Reforms in Turbulent Times: A study on the theory and practice of three irrigation management policy reform models in Mashonaland, Zimbabwe*. Harare. Wageningen UR. Prom./coprom.
- Zawe, C., Madyiwa, S., and Matete, M. (2015). *Trends and Outlook: Agricultural Water Management in Southern Africa: Country Report Zimbabwe*. Harare. International Water Management Institute.
- The Herald Online 17 May 2017. Zimbabwe Newspaper Publishing Co.
- Zimbabwe Government. (1998). *Zimbabwe National Water Authority Act*. Government Printers. Accessed 07/03/19.
- Zimbabwe Government. (1998). *Water Act*. Government Printers. Accessed 09/03/19.
- Zimbabwe Government. (2012). *Zimbabwe Comprehensive Agricultural Policy Framework (2012 – 2032)*. Harare. Government Printers. Accessed 15/02/19.
- Zimbabwe Government. (2012). *National Water Policy*. Harare. Government Printers. Accessed 06/10/19.
- Zimbabwe Government. (2013). *Zimbabwe Constitution*. Harare. Constituteproject.org. Accessed 14/09/16.