



# Nhindiwa micro-irrigation scheme

## Concept note

### 1 Introduction and Background to the Nhindiwa micro-irrigation scheme, Mutasa, Zimbabwe

An ongoing research study by Dr. C. Mwandayi and Mr. Sipeyise (Midlands State University, 2013 -2014) is focusing on addressing food security gaps for rural people of Zimbabwe. Among the areas that have been covered so far is Mutasa district, Zimbabwe. A needs assessment was carried out in Nhindiwa village where at least 50 households (350 people) were identified as food-insecure.

The needs assessment aimed to identify the main needs of the targeted population in the targeted programme area, and based on the findings, develop a strategy that addresses the identified needs as optimally as possible.

The main needs identified were food-security, improved income and improved capacity to engage in horticultural production.

Major findings of the assessment:

- Extreme droughts pose major risks on the food-security of villagers.
- Generally, rural areas stand to be disadvantaged in a number of aspects like for example, low income, dependance only on seasonal rains, poor road networks and markets being located in distant places.
- The lacking provision of reliable and adequate water supply is limiting productivity in rural areas.
- Productivity in rural areas is only at 100% during the rain season, thus, the cropping programme has a distinct break period which coincides with the peak dry season period (July-October), which generally record low household income during the same period.
- 40% of beneficiaries try to sell what they can produce and are not growing what they can sell because they still lack a market-led mind set in horticulture production. Market linkages do exist to about 30% of farmers.
- Apart from aspects of food-security, the HIV/AIDS pandemic has resulted in high numbers of orphans whose adoptive families or widowed mothers lack the money to pay for their education. At least 70 orphans are presently not attending school in Nhindiwa.

### 2 Concept Note Rationale

**50 household (350 people)** beneficiaries can be categorized into different commercial horticultural-enterprise phases depending on their degree of organizational development stage; level of market integration; types of technology to be employed, and access to support services like provision of water supply. Different levels of support are needed depending on their evolutionary stage.

Early stage horticultural-entrepreneurs are likely to be the main targets for the farmer entrepreneur scheme as they represent those who can grow out of poverty through better access to services like alternative source of energy to power irrigation schemes, improved water supply for the total 20ha rural irrigable land. The rural irrigation scheme ought to be supported so as to

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be in a position to be productive throughout the year without peak dry season breaks. Total expected water supply for the irrigation scheme is 10l/s, for the provision of adequate water supply.

### Market linkages targeting 50 household (350 people) beneficiaries

We propose to create market linkages for the targeted 50 household (350 people) beneficiaries. The aim is to facilitate the establishment of sustainable output market channels between farmers – agro-dealers – wholesalers/retailers and farmers-traders-transporters-processors/manufacturers in programme areas. Linkages between the viable market chain actors will be supported and encouraged through formal events following the initial market mapping exercise and field work linked to technology fairs.

The aim is to shortlist a few horticultural produce which are in demand by private sector companies and which offer good market opportunities for small holders for further participatory market chain analysis and support contract farming for export by forging or supporting public-private partnership between small-scale horticultural producers as out growers and private sector exporting companies.

There ought to be follow up sessions between the viable actors to nurture the linkages between producer groups and buyers of growing markets and generate mutual trust as well as ensure that feedback is gained on the process and experiences of the different actors. The project will offer smallholders a diversity of marketing opportunities identified by private sector companies according to their circumstances and resources. It will also focus on training public sector extension agencies (Agritex) to deliver marketing information as well as processing and production advice. Implementing through this strategy has the added advantage of contributing to the increased production as well as guaranteed high value market-led production with a sustainable win-win mutual relationship between small scale horticultural producers and the private sector agro exporting companies who are prepared to invest where there is value for money.

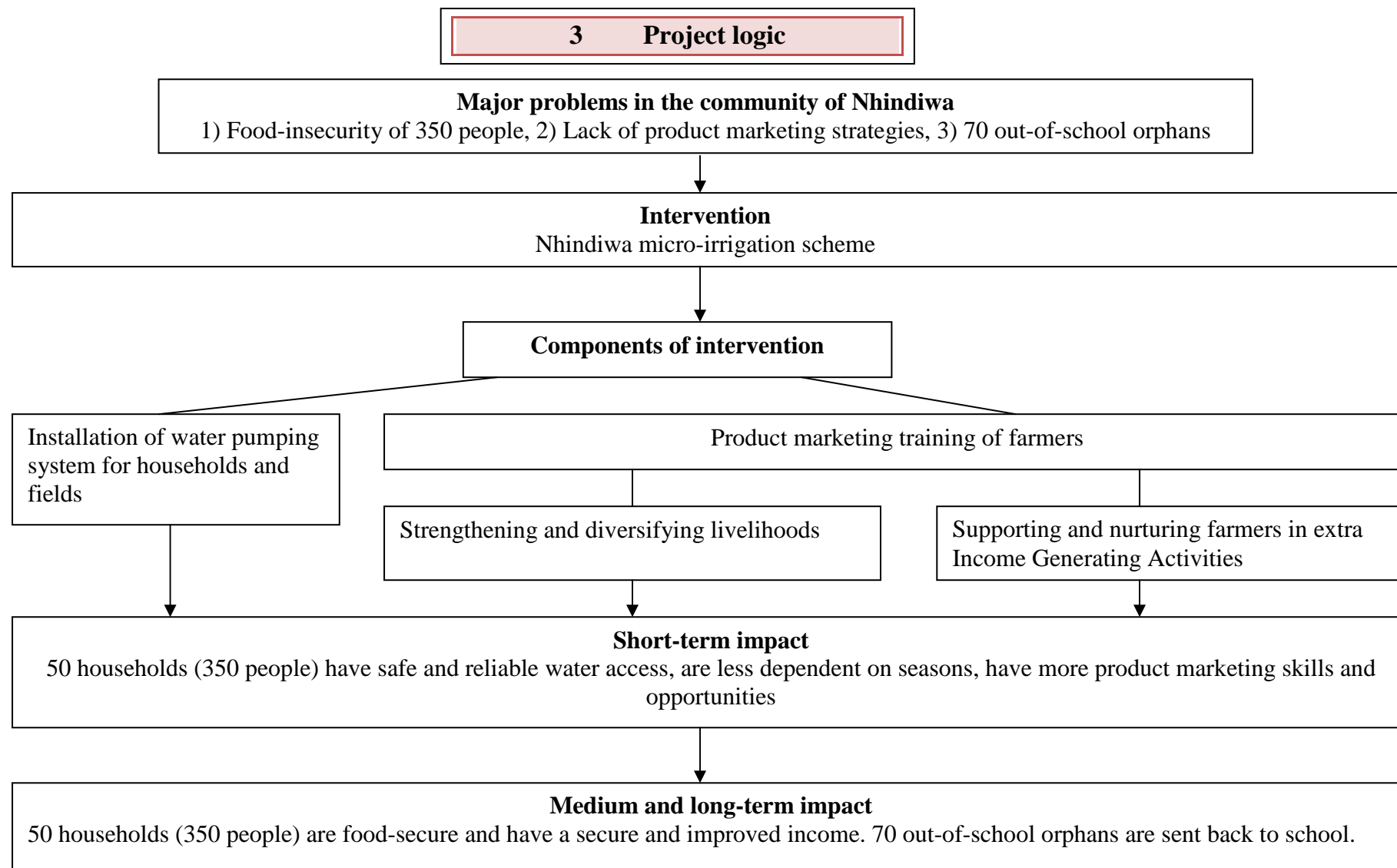
Strengthening and diversifying livelihoods activities in line with supporting and nurturing farmers in extra Income Generating Activities (IGAs) is another opportunity to improve farmers' household income. Extra famers' IGAs like mushroom production and community identified IGAs can be a reliable source of farmers' working capital as they engage in commercial horticulture and this will help to stabilise the rural and urban economy, and mitigate future food-insecurity crises due to improved income. IGAs is being prioritised in this concept note.

Improved income will enable adoptive families and widowed mothers of orphans to the ability to pay for tuition fees. 70 out-of-school orphans will be able to return to school.

In a nutshell, rural irrigation scheme infrastructural capital development (provision of adequate water supply for 20ha, provision of at least one ram pump to pump the water is being prioritised. Extension service delivery and farmer trainings on market-led production and IGAs management are further priorities.

This concept note outlines the roadmap for establishing the project in Nhindiwa village as well as ways to consolidate and enhance project sustainability. The project implementation will be accompanied by a scientific evaluation. The basis for the project approach and the evaluation is the project logic below.

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### 4 Further details

#### Target group:

50 households = 350 individuals, including 70 out-of-school AIDS orphans

#### Time frame of the project

2 years

#### Supplies needed for the project

1. 1 ram pump
2. 110mm main supply water pipe
3. Saddles
4. 1m steel stand pipes
5. 50m x 10mm pipe
6. Adapter and socket
7. Stopper
8. 50 000 litres water reservoir.

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