

## How to prepare for PICSA

This document is to be used alongside the Participatory Integrated Climate Services for Agriculture field manual. If you are going to use PICSA in an area then it is important that the necessary preparatory work is done in advance of use of the field manual with farmers. This document firstly lists the key principles of PICSA and then outlines the key stages of PICSA.

### 1 Key principles of PICSA

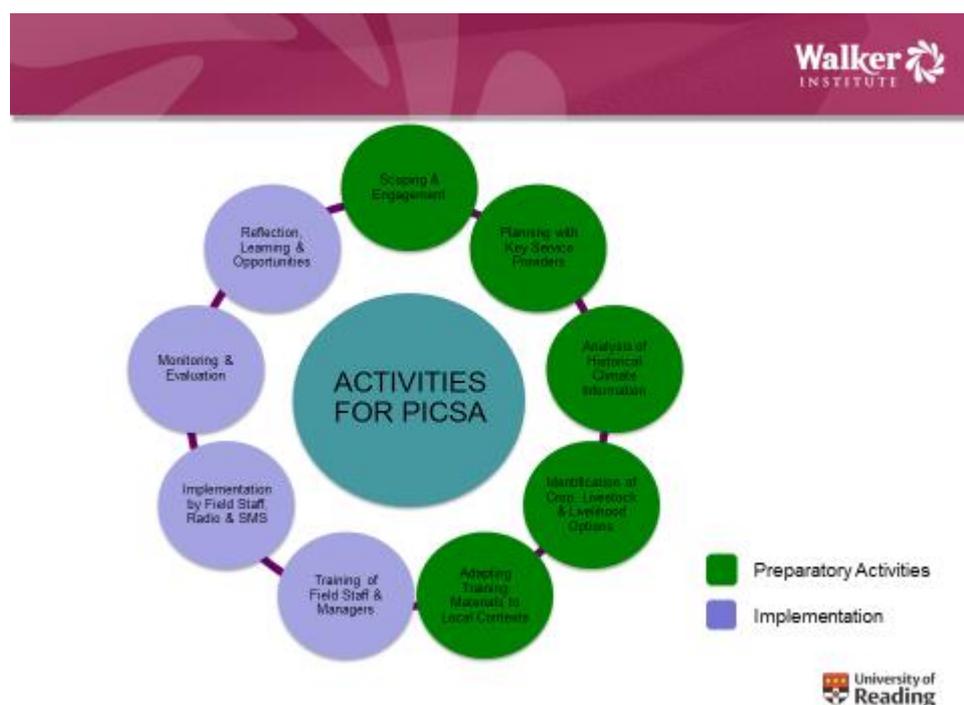
The PICSA approach set out to provide weather and climate information at scale to extension staff and farmers as well as a set of participatory tools to help farmers to interpret and use this information in their decision making.

PICSA began with some key principles and these have been strengthened through experience of running the approach in several countries. They are listed here:

- a. The National Met Service (NMS) in the country is a key partner whenever possible (this is not always done; sometimes projects ignore them or just asked for their data or forecasts).
- b. The approach proceeds largely through “intermediaries” (i.e. the extension service, NGO staff or farmers’ associations) who are already working directly with farmers. Hence the aim is to add climatic information into their existing discussions with farmers, rather than considering climate information as a separate task / project to implement.
- c. It is important to relate climate and weather information to farmers’ decision making - i.e. linking to key decisions that farmers make before and during seasons that are influenced by climate and weather.
- d. There are important factors in addition to climate and weather that farmers take into account when planning and making decisions, such as market prices, food reserves, availability of inputs, and it is important that climate and weather are not considered in isolation.
- e. The approach should provide “Options” that reflect the diversity of farmers. In the approach this is called “Options by Context”. Each farmer has his/her own physical and social “context” (this contrasts with some initiatives in development that have in the past assumed that “one size fits all”).
- f. The focus should not be limited to crops. Farmers often have a range of crop, livestock and other livelihood options that they either already engage in or that they may wish to.
- g. The use of historical climate data and analysis provides a starting point for planning and decision making well before the season. This information should then be supplemented by the seasonal and short term forecasts (currently some initiatives start with the seasonal forecast).
- h. The primary historical data are not needed by any other partner, i.e. the NMS staff can provide analyses and products from the historical records themselves (hence there is no issue concerning buying or being given [daily] data).
- i. Providing participatory tools enables farmers to interpret information and make their own decisions based on their individual contexts (i.e. “options by context”).

## 2 Key activities for preparing to implement PICSA

The following are key activities needed to prepare for and implement PICSA in a (any) country.



### i. Scoping study –National Met Services

The PICSA process needs the National Met Service to produce analyses of the historical data for stations that are “close” to the farmers in the focus area. One limitation is therefore that no such station may exist or that there is not the capacity in the Met service to produce these analyses. It is important to establish this well before any scale out of the PICSA approach is planned so that availability of data and capacity of the National Met Service can be established. In some contexts the scaling out of PICSA could be considerably enhanced by on-going work to combine station records with satellite estimates of rainfall which is available in some countries and may be extended in the future.

### ii. Scoping study - service provision

This activity aims to identify projects and programmes that either concentrate on or have elements of climate services provision for small scale farmers. It is important to identify key stakeholders to get a deeper understanding of these projects / programmes and the links that they have with other projects / programmes including the National Met Service in the country. This activity is intended to build up a picture of the climate service provision in an area / region and to identify potential partners and or collaborations. The activity depends upon the context of an organisations experience and relationship with the location in which it is planning to work. It is useful at this stage to include the full range of organisations and types of initiative including those working directly with farmers through groups and other forms of ‘extension’, those using radio and SMS, and both public and private sector initiatives.

### **iii. Scoping study – agricultural systems**

This activity is intended to identify the key agricultural systems in the country / area of interest; how climate and weather influence them and what information may be useful to farmers. Similarly to the scoping study for service provision this activity depends upon an organisation's experience in an area. If working in a new area this may involve preliminary research online and through literature searches. Once the agricultural systems are identified, it is important to identify key informants who are able to explain in more depth the key climate information needs for those systems. If possible, some initial work with small groups of farmers to identify key information needs is important.

### **iv. Engagement with key service providers – ownership, agreement and responsibilities/roles**

The initial engagement with service providers is important to understand what programmes and projects have been in place previously, the current picture regarding climate information and what is planned in the near future, and capacity; however, it is also an opportunity to discuss possibilities for collaboration. For those service providers that are interested it is important to follow-up these initial discussions with more concrete planning which includes agreeing an approach (i.e. scale and strategy) and ensuring that service providers are able to take ownership of the process and subsequent scale up.

### **v. Analysis and production of historical climate information for specific sites**

Sites are identified, based upon an initial analysis of the historical climate information that is available (use of the historical data is a key component, and hence sites may be rejected if there are no data / lots of missing data). Once this is confirmed it may be necessary to check these data (which may involve a visit to specific stations to check paper records). Once the data are available and checked the National Met Service are able to analyse these data and produce products that are useful for agricultural field staff and the farmers that they work with. If necessary training in historical data analysis may need to be provided to the Met Service.

### **vi. Identification of crop, livestock and livelihood options and farmer information requirements**

For the climate information to be useful and useable it is important to understand the options that may be available to farmers. This activity aims to identify a range of options (not exhaustive) that extension staff/intermediaries may add to those that farmers already have, and that can be considered alongside the climate information. 'Crop and crop management options' involve a list of crops and varieties that are available/suitable in a location together with their crop water requirements and the number of days to maturity; with information on the different crop management options that are available to farmers (e.g. soil and water conservation practices, changing planting times). 'Livestock and livestock management options' include types of livestock and management such as feed, stocking rates etc. 'Livelihood options' are those outside of agriculture (or those that add value to agricultural products) and again, it is necessary for these to fit with the local context. Identification of all the options requires correspondence / discussions with local experts and research institutions to understand the different options that farmers may have (including what projects and programmes in an area are already focussing on) and how they are effected by the weather and climate.

### **vii. Incorporation and improvement of current approaches to seasonal and short-term forecasting**

The seasonal forecast is provided in all countries and fits into the PICSA (or similar) approach relatively soon before the season. It is used in PICSA as 'additional information' that may help

farmers to adjust plans that they have already made using historical information, probabilities, crop livestock and livelihood options, and decision making and planning tools. For most countries, the seasonal forecast is provided in collaboration with a regional centre. In preparation, it is important to understand how it is communicated, establish its skill so that farmers can be made aware of this (if possible) and how both communication, and where possible the forecast itself, can be improved. There is potential for improvements and for it to be made more relevant if it can be downscaled (ideally to station level). Also, where skill exists if it can be given for a range of aspects in addition to the 3-month rainfall total. The main improvement for short-term forecasts concerns timely dissemination, and new possibilities are opening, that use local radio and also phones.

#### **viii. Adaptation of training materials for the local context**

The majority of PICSAs training tools are generic and can be used across different locations and contexts. However, certain elements need to be adapted to fit with the National Met. Service (e.g. information on seasonal forecast [steps H and I] and short-term forecasts [appendices 5 to 8]) and agricultural system (e.g. crop, livestock and livelihood options [appendices 1 to 4]).

#### **ix. Training of field staff and managers in government extension and NGOs**

Training of trainers (agricultural field staff) is required so that field staff are able to understand the context and concepts of climate services and the PICSAs approach. Training should be practically focussed so that field staff are able to use the participatory tools that are designed to help farmers to interpret the climate information and use it in their decision making processes. It is important in these trainings to involve those staff who work directly with farmers but also more senior staff whose 'buy-in' will be required to enable the implementation of work with farmers to be successful.

#### **x. Implementation of approach by field staff working directly with farmers**

Field staff are encouraged to integrate the tools that they have learnt into their day-to-day roles. Meetings with existing groups of farmers are ideal forums for the training materials to be disseminated. Despite this, it is usually necessary for some small amounts of resources to enable field staff to meet with farmers (e.g. fuel, stationary and printing of some materials) and this support needs to be in place in advance of the any training. After the initial season or two and once the benefits of the approach are evident it is important to work with local and national stakeholders to establish if appropriate how the approach becomes part of mainstream and normal activities by government departments and NGOs and therefore sustainable.

#### **xi. Monitoring and Evaluation**

Monitoring the implementation by field staff is important to understand firstly how many farmers / households are being reached by the approach and then to understand how the information is helping farmers to make decisions and change their farming and livelihood practices. This needs to be thought through and designed before implementation starts so that key indicators and activities can be included.

#### **xii. Reflection and learning**

As with Monitoring and Evaluation it is important that the objective of learning is incorporated into the planning of activities, before implementation starts. At each level (facilitators, field staff and farmers) reflection on the process is encouraged to understand what elements are working and what may be improved (both during the season for immediate action and for subsequent seasons). Reflection and learning can then be taken into future trainings and implementation in the same and other locations. A two day review and support meeting with field staff has been found to be

beneficial a few weeks after field staff have attended the training and started to work with farmers. Feedback meetings need to be held at the end of the season with farmer groups to review the approach, its usefulness and suggestion for improvement. Similarly, review meetings with field staff and managers are necessary and with stakeholders e.g. Met. Services, shortly after the end of the season to jointly evaluate implementation, reflect and make adaptations and improvements to be incorporated into providing the climate services for the next season.

**xiii. Sharing of results and experiences with stakeholders and policy makers to encourage mainstreaming of climate services approaches within national policy**

If the approach is not already 'mainstreamed' and sustainably implemented by relevant institutions in an area / country then it is useful to ensure that policy makers and key decision makers are aware. This requires planning ahead to create opportunities for them to learn about the approach e.g. through reports and updates, meetings, and where possible attending training and field visits to hear from farmers and staff directly.

Clarkson, Dorward & Stern (2015)