



TCP-PIAT NEWSLETTER



TECHNICAL COOPERATION PROJECT FOR
PROMOTION OF IRRIGATED AGRICULTURE IN TERAI PLAIN
“MAXIMUM USE OF WATER, GROW FOR SALE”



No. 3

January 2023



Exposure visit to Leaders Farmer at a Private Agri. Farm in Bhadrapur



2 days Poly-house construction training to leader farmers of TCP-PIAT

Brief Explanation of TCP-PIAT

Initiated on 6 February 2019 as per the record of discussions between the Government of Nepal and the Japan International Cooperation Agency (JICA), the goal of the TCP-PIAT is to form “the Model of Irrigated Agriculture” by the collaboration among the Federal, Provincial, Local Governments (municipalities) and Water Users Associations (WUAs). TCP-PIAT is currently in the second phase from April 2021. The project’s activities are divided into 1) equitable water distribution and appropriate facility maintenance, which covers the whole Kankai irrigation scheme, and 2) on-farm development and market-oriented agriculture, which is undergoing in the selected secondary canals (SCs): Shivasatakshi Municipality- SC 1/ TC6 (Ward 7), SC 4/TC 11 and 12 (Ward 5); Gauriganj Rural Municipality SC 10/ TC 10&11 and SC 7/TC 3&4 (Ward 1); Kamal Rural Municipality-, SC 15/ TC 10&11, SC 14A/TC 1&2 (Ward 1) and Gauradaha Municipality- SC 17/ TC 2 and SC 20/TC 5 (Ward 9).

Agricultural Mechanization to Increase Productivity

Technology has a major role in farming. Given shortages of agricultural laborers, increased cost of production, and declining productivity, the Agricultural Knowledge Centre (AKC) under the Ministry of Agriculture, Province 1, collaborated with the JICA Project Team to demonstrate rice cultivation technology using a laser land leveller. Key cooperating partners in the demonstration are the Directorate of Agricultural Research (Province 1), Kankai Irrigation Management Office (KIMO), Kankai Water User Association and Municipality Agriculture Development Sections of the four municipalities, besides the four leader farmers from the four municipalities in Kankai Irrigation System (KIS). Under the technology demonstration program, the first demonstration was launched at Shivasatakshi -5 on the farm of Mr. Udaya Bhanu Sahu, where about 8 *kattha* (approx. 2,600 sq. m.) of land was levelled using a Laser Land Leveller. More than 15 local farmers observed the land levelling procedure. Earlier, JICA-TCP-PIAT had procured a Laser Leveller and a tractor and handed them over to KIMO to be operated by WUA. The operator was provided by WUA. DoAR provided training to operate laser land leveller. Before this a letter of agreement was signed between the KIMO and DoAR to provide technology support services witnessed by AKC and JICA Project Team. The program will be launched at 4 different farmer’s fields in four municipalities to show the impact of land levelling in spring rice production. The land levelling technology enables water conservation by 45%, supports uniform water distribution, enhances water retention and storage, reduces fertilizer run-off, and increases agricultural productivity.



Land Levelling demonstration using Laser Land Leveller in farmer’s field conducted

Dedicated Women Farmer Group Towards Market-oriented Agriculture

Gauriganj Rural Municipality Ward No. 1 Rangethan is inhabited by indigenous Rajbanshi and migrated hilly people. *Indreni Mahila Krishak Samuh* of this village comprises 25 members with equal participation of both castes. The group is led by Mrs. Goma Devi Parajuli as the chairman and Mrs. Nirupa Kumari Rajbanshi as the vice chairman. "Before involvement with the TCP-PIAT, Goma Devi says, "the activities of our group were limited to the monthly meeting and providing saving and credit facilities to the members." "The group is now exposed to market-oriented commercial agriculture." The group is confident that they could increase their income from farming and fulfill the needs of the families.



Women members of Indreni Women Farmers Group of model site TC 03 & 04 of SC07

Joining TCP-PIAT, they have experienced that the scope of the approach towards agricultural business has broadened through regular discussions, agricultural market surveys, and agricultural farm observation visits conducted by the project. They say they have received opportunities to learn about modern farming techniques, the availability of agricultural materials, the market arrangement of produced goods, and consumer demands. The group members have begun to share what they have learned in the training and visit programs organized by the project. The group's enthusiasm for commercial agriculture has increased due to the increased availability of road infrastructure and communication facilities." They understand that organic products and regular and adequate supply (quantity and quality) are important factors for the assurance of the market.

The key feature of this group is that it is a mixed group comprised of other caste groups, and the indigenous Rajbanshi ethnic caste, who are recognized by the country as one of the best vegetable growing farmers. However, Rajbanshi people usually produce vegetables for their household consumption and sell in the local *haat* bazar, if remained after the household consumption. The group intends to integrate the vegetable farming experience of these traditional vegetable growers with that of the market-oriented commercial agriculture approach- Grow for Sale- to augment the family income. Many group members have started cultivating vegetables and other cash crops for commercial purposes. The group is determined and highly motivated to expand the campaign.

Commercial Agriculture is the Need of the Day



Mr. Rabindra Bhattarai, a JT in agriculture Section of Shivasatakshi Municipality

For the last three years, Mr. Rabindra Bhattarai has been working as the chief of the Agriculture Development Section in Shivasatakshi Municipality. Before this, he worked in the Agricultural Development Farm Chandradangi, Jhapa,

Explaining responsibilities in the agriculture section, he said, "As an agriculture extension worker, I am responsible for providing technical advice and suggestions to the farmers regarding modern agricultural practices, availing agricultural subsidies to the farmers in the Municipality as per the municipal agriculture development programs, imparting training to farmers and any other agriculture development related activities required by the Municipality that farmers can benefit. He said that his Municipality provides subsidies to farmers for agricultural mechanization, irrigation, vegetable cultivation, seeds, and others based

on farmers' demands. The training is provided at ward level on subjects such as the repair and maintenance of agricultural machinery, vegetable farming and rice cultivation.

When asked what are the key problems of agriculture modernization and commercialization in his Municipality, "Insufficient basic data for agriculture planning", he replies, "lack of organized agricultural markets, low competitiveness of Nepalese farmers to compete with cheap agricultural products entering Municipality through informal sources especially cross-border phenomena, unavailability of key production inputs on time, e.g., fertilizers, farmers' keen on subsidies than farming and declining farmers' interest and engagement in the farming. "Terai Irrigated Agriculture based Commercial Agriculture Approach (CAP) promoted by the TCP-PIAT responds to one of the critical problems of farmers in his Municipality," Mr. Bhattarai reiterates, "The "Market first" approach is necessary to help farmers, especially small farmers, to establish linkages with the market". He says, "Commercialization of agriculture is the need of the day and this CAP approach promoted by the project is effective and necessary." He said, "Central to CAP approach is to identify farming problems through group discussions, and it promotes "Grow to sell in the place of traditional and not grow and sell approach."

WUA Election: On the way of Good Governance

The election of the Kankai Canal Water User's Association, which should be held every 4 years, could not be held on time due to various reasons. The tertiary/DTO level committees' elections are scheduled from 5th February 2023. According to the schedule published by the election committee, the election of various 181 Tertiary/DTO level committees will be completed in a phased manner within 2nd week of March 2023.

According to the WUA election committee, the election program of the secondary canal committee (SCC) level will be announced after the results of all the lower committees (TCCs) are announced. After that, the Kankai Irrigation Management Office will hold election of the main canal committee (MCC) with the announcement of SCC election results. The project extends thanks to the Kankai Canal Water User's Association for the step taken by it in the areas of good governance and wishes for the success of the election program.



Election activities of WUA at DTO T01 of SC01 at Shivasatakshi-9

Equitable water distribution for market oriented agriculture



End user of tertiary canal 06 of SC01 and progressive farmer Mr. Dilli Prasad Poudel in his vegetable field.

Tertiary Canal 06 under secondary canal 01 is the model site of the TCP-PIAT project. The chairman of this tertiary, Mr. Dilli Prasad Poudel, is a progressive farmer and a water user of SC1/TC 06. From this 2022/23 winter season (Mid-December to Mid-March), KIMO, WUA, and TCP-PIAT decided to introduce 3- day shifts weekly to release water in the secondary canals. "The changed water distribution system," reacting to the new schedule, Mr. Poudel stressed, "will contribute to an equitable water distribution." He emphasized that this three-day alternate system is appropriate and necessary. He believes it will help farmers in the winter season and contribute to increasing crop intensity. He reiterated that all gatekeepers should be instructed appropriately to implement the schedule effectively, and this rule should continue in the coming years. Before this, there was no rule for distributing water in winter. Farmers used to open the gates in the canal by themselves, and the possibility of water misuse was high. Mr. Poudel said that out of approximately 50 Ha of the total command area of tertiary canal 06, mustard, maize, forage, and vegetable cultivation cover 5, 5.2 & 3 hectares in the winter season, respectively. Farmers use canal water for mustard, maize, and forage cultivation, but they use water from shallow tube wells for vegetable cultivation. Like Mr. Poudel, many water users in the KIS area believe that the farmers will be encouraged to carry out commercial farming and the cropping intensity will substantially increase provided that the winter water distribution schedule is timely prepared, informed to all stakeholders before the winter season starts and continued with sincerity.

Water Distribution Schedule

Between Kankai Irrigation Management Office and Kankai Canal Water Users Association, a memorandum of understanding was signed on November 28, 2022, regarding the water distribution schedule for winter and spring crops for 2022/23. According to the memorandum of understanding, water will be distributed at 3 days intervals weekly in two groups, secondary canal 0-12 (Group-1) and secondary canal 13-21 (Group no. 2) in the winter season of 2023. As per the schedule, water is distributed to Group 1 from 6 am on Sunday to 6 am on Wednesday and from 6 am on Wednesday to 6 am on Saturday to Group-2. Similarly, water will be distributed in Group 1 from 6 am on Sunday to 6 am on Saturday for the spring season crops of the coming year, 2023. It is believed that the water users of the Kankai irrigation system will benefit from this water distribution plan.

Dipesh Chaudhary has been working as a gate keeper under the Kankai Irrigation Management Office for about 2 years. Currently, he is responsible for distributing water and canal maintenance in secondary canal 1. In addition to this, other gate keeper Mr. Som Bahadur Majhi and he have joint responsibility for cleaning the weeds and debris that accumulate in the Satasi Siphon, in the main canal. Mr. Chaudhary says, "The water distribution schedule recently prepared by the office to change water distribution system is appropriate". By doing this, He emphasized, "water will reach all the secondary canals and the farmers can use the water in their turn". Further he added, "This water schedule-based water distribution system will reduce the unnecessary pressures from the farmers to open the gates water. He says that he has been releasing water only up to the mark set by the office so that the water of the canal would not be misused.



TCP-PIAT Activities in pictures



Mr. Bhim Bahadur Budhathoki at his cauliflower & potato farm, continuation towards CAP approach



Women members of Model site SC07 discussing with vendor of vegetable at Damak vegetable market during market survey visit



Farmers participating in training on construction of Poly-house



Cleaned and maintained canal of model site SC-04



Cadastral map verification by TCP-PIAT team in farmer's field in connection with preparation of land owner's master list



Canal cleaning and On-farm development work at Model site TC-11 of SC-04.



Project Monitoring Committee meeting on Dec 22, 2022 at KIMO meeting hall, chaired by DDG of DoWRI Mr. Tikaram Baral.



Task Team Meeting, a regular activity of TCP-PIAT held in KIMO meeting hall, chaired by chief of KIMO, Mr. Umesh Sujakhu on January 18, 2023