Agriculture Development Strategy (ADS) Joint Sector Review (JSR) Fourth Annual Report

June 2023



DISCLAIMER This report is made possible by the generous support of the American people through the United States Agency for International Development (USAID) under the Feed the Future initiatives. The contents are the responsibility of the Ministry of Agriculture and Livestock Development and Winrock International, KISAN II Project, and do not necessarily reflect the views of USAID or the United States Government.

FOREWORD

I am pleased to introduce this fourth annual report of the Agriculture Development Strategy (ADS) Joint Sector Review (JSR). The JSR mechanism, which has been operational since October 2018, was established jointly by the Government of Nepal (GON), represented by the Ministry of Agriculture and Livestock Development (MOALD/the Ministry), and development partners (DPs) supporting Nepal's agriculture sector. This report is prepared in line with the ADS JSR objectives of: (i) jointly conducting strategic reviews of the agriculture sector to identify issues that affect implementation performance; (ii) contributing to alignment and harmonization of GON and DP priorities in the sector; and (iii) preparing and contributing to the execution of a time-bound action plan to address issues for achieving intended sector results.

This report offers a succinct review of the agriculture sector, including progress on recommendations from the second annual review (2021) and implementation status of the action plan from the second annual JSR meeting (2021). It also examines trends and progress towards ADS's indicators based on sector data from fiscal year (FY)2021/22 (or latest available data), and extends useful recommendations for improving sector performance, including rationale for institutionalizing the JSR mechanism. Of particular use are the analysis of decreased importation of rice in FY2021/22 and possible measures to sustain the decrease, and rationale and scope of the forthcoming review and revision of ADS led by MOALD with technical assistance from DPs to help develop common understanding among stakeholders.

I am pleased that the recommendations of the second sector review and the action plan of the second annual JSR meeting, jointly implemented by MOALD, provincial agriculture ministries (PAM), and DPs, have been significantly completed. Others that have been incorporated in the recommendations of the third sector review and action plan of the third annual JSR meeting for their completion are still underway. This demonstrates the commitment to and accountability of the sector and confirms the viability of the JSR mechanism as a continued platform for GON and DPs to jointly identify and discuss sector issues and solutions.

Execution of the JSR institutionalization roadmap approved by MOALD in August 2022 is also progressing well. JSR functions have been incorporated in the draft National Agriculture Policy, which is under formulation. JSR functions are also incorporated in the draft Agriculture Bill with requisite detail. A draft JSR Implementation Procedures was prepared, and key content of the Procedures forms the "Review" chapter of the Agriculture Sector Joint Planning, Monitoring, Review, and Coordination Directives under formulation by MOALD. Upon approval of the Directives, JSR will be formally incorporated in the GON system and become part of the GON annual program executed jointly with DPs.

On behalf of MOALD, I would like to thank Mr. Indra Hari Paudel, Chief, ADS Coordination Section (and Member Secretary, JSR Technical Committee), Dr. Mahendra Khanal, Senior Policy and Program Advisor, USAID's KISAN II Project, and Mr. Govinda Gewali, ADS-JSR Coordination Expert (Review Coordinator) for conducting the review and preparing this report. I would also like to thank the USAID KISAN II Project for allocating resources towards the production of this important report.

Prakash Kurhar Sanjel Joint Secretary, Ministry of Agriculture and Livestock Development Chair, JSR Technical Committee

ACRONYMS

ADS Agriculture Development Strategy
AGDP Agriculture Gross Domestic Product

AKC Agriculture Knowledge Center

BMI Body Mass Indicator

CLID Crop and Livestock Insurance Directives

DOC Department of Customs
DPs Development Partners

FY Fiscal Year

GDP Gross Domestic Product
GON Government of Nepal
JSR Joint Sector Review

KISAN II Knowledge-based Integrated Sustainable Agriculture in Nepal

M&E Monitoring and Evaluation

MOALD Ministry of Agriculture and Livestock Development
MOEWRI Ministry of Energy, Water Resources, and Irrigation

MOF Ministry of Finance

MOFE Ministry of Forest and Environment

MT Metric Tons

NAES Nepal Agriculture Extension Strategy

NAP National Agricultural Policy
NPC National Planning Commission

PADS Provincial Agriculture Development Strategy

PAM Provincial Agriculture Ministry

PMAMP Prime Minister Agriculture Modernization Project

RMM Rice Mill Model

SFDMD Subsidized Fertilizer Distribution Management Directives

TA Technical Assistance

USAID United States Agency for International Development

VHLSECs Veterinary Hospital and Livestock Service Expert Centers

TABLE OF CONTENTS

FORWARD	i
EXECUTIVE SUMMARY	V
INTRODUCTION	- 1
PROGRESS ON SECOND SECTOR REVIEW RECOMMENDATIONS	- 1
A. Continue JSR Operations with Broadened Scope	- 1
B. Take Concrete Steps for Institutionalization of JSR	- 1
C. Complete Ongoing Revisions to National Agriculture Policy 2004	2
D. Conduct First Five-Yearly Review of ADS	2
E. Increase Program for Fine Rice, Industrial Maize, Tea, and Cardamom	3
F. Establish Sector-Wide Monitoring and Reporting System	3
G. Review of Contemporary Sector Issues	3
PROGRESS ON 2021 JSR ACTION PLAN	5
TRENDS AND PROGRESS TOWARDS ACHIEVING ADS INDICATORS	7
Component I: Self-Reliance	11
Component 2: Sustainability	12
Component 3: Competitiveness	12
Component 4: Inclusiveness	13
Component 5:AGDP Growth	13
Component 6: Livelihoods	13
Component 7: Food and Nutrition Security	14
CONCLUSIONS, RECOMMENDATIONS, AND SUBSEQUENT ACTIONS	15
A. Conclusions	15
B. Recommendations	16
C. Subsequent Actions	17
Appendixs	18
Appendix I. Rice Import Reduction: Measures to Sustain it in Future	23
Appendix II. Rationale and Scope of Review and Revision of ADS	18
Appendix III. Action Plan and Decisions endorsed by Honorable Minister of MOALD	25
References	40

LIST OF TABLES

Table 1. Status of Second Annual JSR Meeting Actions	5-6
Table 2.ADS Targets and Achievements	8-10
Table 3. Cultivated Area, Production, and Yield of Paddy	18
Table 4. Total Imports of Rice and Related Products	19

EXECUTIVE SUMMARY

The Joint Sector Review (JSR) mechanism is evolving into a viable institutional structure for periodic review of agriculture sector performance as well as a platform for regular interactions between the Government of Nepal (GON) and development partners (DPs), and institutionalization of the mechanism is well underway. The fourth annual agriculture sector review, which is also the fourth annual JSR progress report, reviewed the status of recommendations from the second annual sector review and action plan of the second annual JSR meeting, and examined trends against the Agriculture Development Strategy's (ADS) implementation plan and progress indicators. This report offers actionable suggestions for the GON, DPs, and related stakeholders to jointly address priorities and improve sector performance.

Progress on Recommendations of Second Annual Sector Review

The second sector review had six recommendations, which were significantly implemented. Provincial agriculture ministries (PAMs)² and municipalities were incorporated into the JSR process as recommended. A roadmap was approved for institutionalization of JSR, and JSR has been incorporated in the latest version of the National Agriculture Policy (NAP), Agriculture Bill, and the Agriculture Sector Joint Planning, Monitoring, Review, and Coordination Directives (in which JSR mechanism forms the "Review" chapter of the Directives). Review and revision of ADS has been started by preparing a background document. Actual review and revision, by incorporating findings of the provincial ADS (currently at different stages of formulation) and aligning with the federalized context, is planned for FY2023/24, which will be led by MOALD with technical assistance from DPs. GON (federal, provincial, and local levels) and DPs have increased annual program investments in fine rice, industrial maize, tea, and cardamom. However, actual changes brought about by the program investments are still not well known due to the absence of monitoring and reporting mechanisms and staff capacity constraints, mainly at the local and provincial levels.

Analysis of Decreased Rice Importation

Rice imports decreased by about 15 percent in FY2021/22 compared with FY2020/21. Analysis shows that various factors contributed to the decrease, which should be viewed positively and used to guide work by GON and DPs to further decrease the imports and fulfill the domestic demand from the country's own production by utilizing potentials of growing fine rice with varieties preferred by a growing number of consumers. Increasing production should be coupled with linking producers with millers, increasing seed production of preferred varieties, and assuring supply of inputs and machineries in collaboration with inputs suppliers, service providers, and local governments.

Rationale and Scope of ADS Review and Revision

Review of ADS is an important task for GON to revise it in line with new domestic and international contexts, including the federalized governance structure. For this purpose, it is important that MOALD, DPs, and related stakeholders, who jointly formulated the ADS, need to hold common understanding on the rationale and scope. As review and revision of ADS is planned in FY2023/24, it was timely and relevant to document its rationale and scope, which is incorporated in the report as one of the contemporary issues.

¹ This report presents status of the second sector review recommendations (2021) and second annual JSR meeting action plan (2021) because their implementation was completed in July and status was available in November 2022. Implementation of the third sector review recommendations (2022) and the third annual JSR meeting actions (2022) are still underway for completion by July and status available in November 2023.

Although functions and mandates are the same, title of the ministry is different for different provinces. Therefore, for convenience, provincial agriculture ministry (PAM) is used in this report.

Progress on JSR Action Plan

The review found generally satisfactory progress on the action plan that resulted from the second annual JSR meeting, for implementation by MOALD, PAMs, and DPs in FY2021/22. As per the plan, subnational consultations/orientations were held in all the provinces to seek feedback on the National Agriculture Policy (NAP) 2004, Nepal Agriculture Extension Strategy (NAES) 2006, Crop and Livestock Insurance Directives (CLID) 2020, and Subsidized Fertilizer Distribution Management Directives (SFDMD) 2020. MOALD, PAMs, and DPs programmed and implemented the fine rice, industrial maize, tea, and cardamom production and processing programs in FY2021/22, although the output data are not available due to the absence of monitoring and reporting mechanisms and skills to carry out the monitoring at province and local levels. Nevertheless, the progress reinforces the value of joint work between GON and DPs to improve sector performance.

ADS Indicators

Of the ADS's 16 first five-years indicators, 12 are on track, while the remaining four—related to food grain self-sufficiency, agricultural trade, irrigated area development, and Agriculture Gross Domestic Product per hectare (AGDP/ha) growth—continue lagging. The review recommends adopting the ADS actions in annual program planning, simplifying the actions, and improving monitoring and review mechanisms at the forthcoming ADS review exercise.

INTRODUCTION

This is the fourth annual agriculture sector review report prepared through the JSR mechanism,³ which is comprised of the GON, represented by MOALD, and DPs supporting Nepal's agriculture sector.⁴ The main purpose of the review was to: (i) assess the implementation status of actions recommended by the second JSR,⁵ (ii) examine progress of action plans agreed in the 2021 JSR meeting,⁶ and (iii) appraise trends and progress of the agriculture sector in FY2021/22, or latest available data, against the ADS's performance indicators.⁷ Findings and discussions of the review are presented in this report.⁸

PROGRESS ON SECOND SECTOR REVIEW RECOMMENDATIONS

The second annual sector review offered the following recommendations to MOALD and DPs: (i) continue JSR operations with broadened scope, (ii) take concrete steps for institutionalization of JSR, (iii) expedite approval of the National Agriculture Policy (NAP), (iv) conduct first five-yearly review and revision of ADS, (v) increase annual program for fine rice, industrial maize, tea, and cardamom, and (vi) establish agriculture sector monitoring and evaluation (M&E) system. Progress on the second review's recommendations was mixed, as summarized below.

A. Continue JSR Operations with Broadened Scope

JSR was initially established as a federal-level mechanism. However, as the Constitution of Nepal (2015) has significantly devolved agriculture operations to provincial and local levels with mandates and responsibilities, JSR has been expanded to the subnational level, starting from the second annual JSR meeting (February-March 2021) and further expanded by the fourth annual JSR meeting (24-25 April 2023). PAMs (represented by secretaries and chiefs of planning, monitoring, and evaluation divisions) as well as selected municipalities (represented by mayors/deputy mayors and planning/program section chiefs) attended the fourth annual meeting. Almost half of the participants of this meeting were from the subnational level, and their contributions formed a major portion of the resulting action plan agreed upon in the meeting. PAMs agreed to take lead roles in implementing the agreed actions in their annual program for FY2022/23 in collaboration with MOALD and DPs. The Provincial Agriculture Development Strategy (PADS), which was already approved by the Cabinet of Sudurpaschim Province and is under formulation at different stages for other provinces, includes JSR as part of the PADS. This demonstrates how JSR is broadening its scope.

B. Take Concrete Steps for Institutionalization of JSR

On August 28, 2022, MOALD approved a roadmap for institutionalization of JSR, after several rounds of discussions among the secretary, joint secretaries, and senior officials of the Ministry. The roadmap covered preparation of JSR implementation procedures, formulation of the Joint Agriculture

³ Mr. Indra Hari Paudel, Chief, ADS Coordination Section, MOALD; Dr. Mahendra Khanal, Senior Policy and Program Advisor, KISAN II Project; and Mr. Govinda Gewali, ADS-JSR Coordination Expert jointly conducted the review and prepared the report. The review is based on secondary information from various sources, stakeholder consultations, and interactions with staff of MOALD, PAMs, DPs, and selected urban and rural municipalities.

⁴ The JSR mechanism has been operational since October 2018 following preparation and endorsement of a guideline by MOALD and DPs.

⁵ The agriculture fourth sector review was carried out through the JSR mechanism from January to May 2023.

⁶ The annual JSR meeting was held in-person on April 24 -25, 2023. Honorable Minister, MOALD, chaired the meeting. Secretaries and senior officials from the federal and provincial ministries; chiefs and senior officials from DPs; and representatives from selected urban and rural municipalities and private sector participated in the meeting.

⁷ ADS has performance indicators only for the first five-years, ten-years, and twenty-years. Implementation of ADS was started from the beginning of FY2015/16.

⁸ Findings of the sector review were shared in the Technical Committee meeting held on April 17, 2023 and subsequently updated based on feedback. The review report has been finalized by incorporating outputs of the fourth annual JSR meeting.

Sector Planning, Monitoring, Review, and Coordination Directives⁹ (in which the JSR mechanism will form the "Review" chapter) and includes JSR in the NAP and the Agriculture Bill, which were under formulation by MOALD.

The process for JSR institutionalization is well underway. MOALD has already drafted the Directives, and stakeholder feedback is being collected from the federal, provincial, and local levels. There is a plan to finalize the Directives and obtain GON approval in 2023. MOALD is revising the latest draft version of the NAP by incorporating feedback of subnational consultations organized jointly by MOALD, PAMs, and DPs in 2022. MOALD has a plan to organize a national level validation workshop in September 2023 on the revised NAP, finalize it by incorporating feedback of the validation workshop, and secure GON approval by December 2023. MOALD has already prepared a complete draft Agriculture Bill. There is a plan to organize local, provincial, and federal level consultations on the Bill; revise the current version by incorporating feedback; and prepare a draft final by December 2023. A cabinet approval and a parliamentary approval is planned by June 2024. To support the institutionalization process, a JSR observation visit is planned in quarter one of FY2023/24 for six senior officials of MOALD to learn experiences of JSR institutionalization elsewhere to adapt and replicate in Nepal.

C. Complete Ongoing Revisions to National Agriculture Policy 2004

Revisions to the National Agriculture Policy (NAP) are at an advanced stage. The revisions are expected to adapt the federalized context, including addressing new challenges, changing roles of stakeholders in the sector, creating an enabling environment for the increased production of the most demanded commodities and varieties, improving access to agricultural inputs, clarifying roles of the private sector, and guiding the proposed review and revision of ADS. For this purpose, subnational consultations were conducted in 2022 on the draft NAP in all provinces, organized by the respective PAM jointly with DPs, and coordinated by MOALD through the JSR mechanism. Officials from PAMs, Agriculture Knowledge Centers (AKCs), Veterinary Hospital and Livestock Service Expert Centers (VHLSECs), and District Coordination Committees; agri-enterprises, commodity associations, and private extension providers; and representatives from selected urban and rural municipalities participated in the consultations. The feedback has been compiled, and there is a plan to incorporate in the NAP for which USAID is providing consultant services. The revised version will be presented in the national validation workshop planned in September 2023. MOALD has a target to finalize and approve the NAP by December 2023.

D. Conduct First Five-Yearly Review of ADS

Preparation for review and revision of ADS was started from December 2022 by drafting a background document agreeable to MOALD and DPs. Commencement of this work was delayed by about a year, mostly to allow findings from the provincial agriculture development strategy (PADS) to be accommodated in the ADS. The Sudurpaschim PAM prepared PADS with support from DP coordinated by MOALD and JSR and acquired a Cabinet approval in October 2022. Formulation of PADS for other provinces are still underway at different stages for completion in 2023. Several DPs expressed interest to provide technical assistance (TA) for review and revision of ADS, and Ministry of Finance (MOF) endorsement to access DPTA has been acquired. MOALD has already formed a Technical Committee, led by the Joint Secretary and Chief of the Agriculture Development Division with representatives from the National Planning Commission (NPC) and other line ministries. The Committee will oversee the work, ensure consultations with key stakeholders at local, provincial, and

⁹ Basing upon the Federal, Provincial, and Local Level Interrelations and Coordination Management Act, 2020.

federal levels, and reflect their views in the revised ADS aligning with the federalized context. The background document underlines that the review will involve an objective assessment of progress on all 16 vision indicators, analyze reasons for shortfalls, and suggest revisions to indicators based on federal and subnational feedback. The revised ADS will be aligned with the federalized implementation, monitoring, and reporting structures, and provide methods to compute and report progress.

E. Increase Program for Fine Rice, Industrial Maize, Tea, and Cardamom

The program for fine rice, industrial maize, tea, and cardamom implemented by GON (federal, provincial, and local levels) and DPs, particularly through annual budget allocation, considerably increased compared to previous years. This is consistent with the target of the Fifteenth Plan (30 percent increase in rice production), and the ADS vision indicators that aim to attain food grain self-sufficiency and agriculture trade balance in the medium-term. MOALD, PAMs, and DPs increased their annual program for promotion of fine rice production in FY2021/22 with plans to further increase in the future based on lessons learned—also an action agreed in the second annual JSR meeting (progress provided in Table I). However, in the absence of monitoring and reporting mechanisms from local and provincial to federal levels, actual data on changes from the increased budgetary allocation are not available in terms of area coverage, yield, and total production. This also applies to the commercial crops such as tea and cardamom, which are mainly produced and processed in Koshi Province. Therefore, while it is important to continue increasing program and budgetary allocations on fine rice, industrial maize, tea, and cardamom by GON, DPs, and the private sector, establishing a monitoring system (encompassing local, provincial, and federal levels) and developing skills of related staff to carry out monitoring is important to document changes.

F. Establish Sector-Wide Monitoring and Reporting System

Although a sector-wide monitoring and reporting system, encompassing local, provincial, and federal levels, has been a high priority of MOALD and DPs, no measurable progress has occurred. Representatives of selected municipalities, all PAMs, and MOALD were consulted to identify gaps and support needed to establish the monitoring and reporting system. Experiences of selected federal level projects were gathered and analyzed. Accordingly, a framework was prepared, and it was agreed to organize subnational consultations, prepare a template for monitoring and reporting, orient related staff to effectively perform the work, start actual monitoring and reporting from selected municipalities and provinces, and replicate based on lessons learned. MOALD programmed and budgeted this function for FY2022/23 and selected DPs showed interest to provide TA. However, this did not happen because the activity was dropped from MOALD's annual program during the midyear budget review exercise due to budgetary constraints. Consequently, this activity could not be meaningfully pursued.

G. Review of Contemporary Sector Issues

Like with previous sector reviews, this review also identified and analyzed two contemporary sector issues. Reasons for the decreased rice imports in FY2021/22, compared to FY2020/21 was reviewed and analyzed to help design possible policy and operational responses to sustain the decrease in imports. Similarly, rationale and scope of the proposed review and revision of ADS was included as part of the excercise, mainly to develop common understanding among GON, DPs, and related stakeholders, and guide the TA team to carry out the work and deliver outputs accordingly. The following sections summarize findings of the analysis. (Details are in Appendices 1 and 11.)

Decreased rice imports and possible measures to sustain. Rice imports decreased by about 15 percent (203,683 metric tons [MT]), from 1,334,365 MT in FY2020/21 to 1,130,682 MT in FY2021/22. This happened while the total production of rice decreased by about 9 percent (491,085 MT) compared to the previous year. Analysis of available data indicates various reasons for the decreased imports, including: (i) imported rice sold out in the same and next year, (ii) the growing trend of producing fine rice in the country (which constitutes a major portion of the imported rice), (iii) effects of the Russia's invasion of Ukraine, (iv) food grain price rise in India, and (v) shortage of agricultural loans. The analysis suggests viewing the decreased rice imports positively and working together to further reduce imports and meet domestic demand from the country's own production. As there is enough scope for increasing fine rice production in Nepal, it is important to continue increasing production of the type of rice of consumers' growing preference, by converting the area under coarse and medium-fine rice varieties (low priced and produced more than the requirement) into fine rice varieties. This will also require linking rice producers with millers, promoting production of fine long grain and aromatic rice varieties as per millers' specifications, and increasing seed production of domestic fine rice varieties to fulfill the requirement. Rice millers should be linked with seed companies to timely provide seeds to farmers and manage other inputs and machineries in collaboration with input suppliers, service providers, municipalities, AKCs, and PMAMP field offices. Further, promotion of large-scale farming under close supervision of agriculture technicians will be needed to reduce production costs, improvement in drying and storage facilities of millers or other actors will be required to purchase paddy from farmers, and efficiency of the millers need to be enhanced to minimize post-harvest losses and increase quality of processed rice. Detailed analysis is provided in Appendix 1.

Rationale and scope of review and revision of ADS. MOALD has initiated the process to conduct a progress review of ADS and revise the document. There is a provision to review ADS after the first five-years of implementation, particularly to assess progress towards the 16 vision indicators and mitigate any implementation shortcomings; align the document with the new federalized governance system; accommodate findings of PADS; and address the changing national priorities and international contexts. For this purpose: (i) federal and provincial ADS and existing policies, guidelines, and regulations will be reviewed; (ii) sub-sectors' performance and issues (irrigation, climate change, land management, agriculture finance, credit, insurance, agribusiness, agriculture trade, and governance) will be analyzed; (iii) impact of ADS on overall agriculture development will be assessed; (iv) information on progress of ADS indicators up to the output level will be collected and analyzed; (vi) gaps and constraints of ADS implementation, including areas for improvements, will be identified; (vii) main areas for revision to the ADS will be recommended; and (viii) the ADS document will be revised and finalized by making it more implementable in the changed context. Details are in Appendix II.

PROGRESS ON 2021 JSR ACTION PLAN¹⁰

JSR Action Plan: Following discussions and prioritization at bi-monthly JSR Technical Committee meetings on the issues recommended by the second sector review in 2021, the GON and DPs identified a set of key policy and program issues in the 2021 annual national JSR meeting. These included the need to: (i) seek subnational feedback through consultations on National Agriculture Policy (NAP) 2004 and the Nepal Agriculture Extension Strategy (NAES) 2006, which are either under revision or overdue for revision by MOALD, to transform these as national policies and strategies by acquiring subnational endorsements and uniformly apply them across the country; (ii) orient subnational stakeholders on their roles and responsibilities in implementing the Crop and Livestock Insurance Directives (CLID) 2020 and Subsidized Fertilizer Distribution Management Directives (SFDMD) 2020—two critical directives in which subnational entities play key roles for effective implementation; (iii) increase fine rice and industrial maize production in MOALD, PAMs, and DPs' annual programs to contribute to attaining domestic self-sufficiency—a key medium-term indicator of ADS; and (iv) increase tea and cardamom production and processing in MOALD, PAMs, and DPs' annual programs to harness export potentials. Discussions from the annual meeting resulted in the following action plan with time-bound actions. Progress on these actions is summarized below, in Table 1.

Table 1. Status of Second Annual JSR Meeting Actions

SN	Actions	Timeline	Responsibility	Status
1	Include policy and program- related activities in annual programs of MOALD, PAMs, and DPs	July 2021	MOALD, PAMs, and DPs, and JSR team	 MOALD, PAMs, and three DPs (USAID, EU, and SDC) included support to policy consultation/ orientation in their annual programs. MOALD, PAMs, and USAID (in SPP and LP) increased program for fine rice and industrial maize for main season. KP PAM and SDC increased tea and cardamom production and processing in their annual programs.
2	Organize NAP and NAES consultations with subnational stakeholders, and collect feedback	Quarter 3	MOALD, PAMs, DPs, and JSR team	 Subnational consultations, led by PAMs, completed in all provinces. USAID co-financed the consultations in SPP and LP; EU in GP, MP, BP, and KrP; and SDC in KP.
3	Organize subnational orientation on CLID and SFDMD	Quarter 3	MOALD, PAMs, DPs, and JSR team	 Subnational orientation, led by PAMs, completed in all the provinces. USAID co-financed the orientation in SPP and LP; EU in GP, MP, BP, and KrP; and SDC in KP.

Progress of the 2021 annual JSR meeting action plan has been summarized in this section because the actions were implemented during FY2021/22 and full outputs were available by the first quarter of FY2022/23. Implementation of the 2022 annual JSR meeting action plan is not included because their implementation is still ongoing, and outputs will be available only by the first quarter of FY2023/24.

SN	Actions	Timeline	Responsibility	Status
4	Implement fine rice and industrial maize programs	May 2022	MOALD, MOLMCPA, and DPs	 PMAMP and CCDABC revised working procedures and prepared detailed implementation plans to promote fine rice and industrial maize production. PAMs also prepared detailed implementation plans for fine rice and industrial maize production. USAID prepared an implementation plan through KISAN II project. Progress on execution of implementation plan monitored during subnational consultation/orientation visits.
5	Implement tea and cardamom production and processing program	May 2022	PAM and DP	 KP PAM and SDC prepared detailed program for implementation. Progress on execution of implementation plan in the field monitored during subnational consultation/orientation visits.
6	Monitor and report progress on policy and program actions	Ongoing	MOALD, PAMs, and JSR team	 ADS Coordination Section of MOALD, M&E division of PAMs, and JSR team monitored and reported progress

Notes:

BP = Bagmati Province; GP = Gandaki Province; KrP = Karnali Province; KP = Koshi Province; LP = Lumbini Province; MP = Madhesh Province, and SPP = Sudurpaschim Province.

CLID = Crop and Livestock Insurance Directives; CCDABC = Centre for Crop Development and Agro Bio-diversity Conservation; EU = European Union; SDC = Swiss Agency for Development and Cooperation; USAID = United States Agency for International Development; SFDMD = Subsidized Fertilizer Distribution Management Directives.

The above six actions for the GON and DPs were implemented well. The subnational consultations on NAP were completed. Similarly, subnational stakeholders' feedback was sought to revise NAES with contextual insights. Orientations on CLID and SFDMD for subnational stakeholders were completed in all provinces and feedback was received to improve implementation effectiveness, as these directives are targeted for subnational levels.

The joint work of MOALD, PAMs, and DPs to promote the production of fine rice and industrial maize—a high priority of the GON—is expected to mitigate soaring imports and contribute to attaining food self-sufficiency. This practice of working together to address high-level national priority issues will also help augment future joint investments based on lessons learned. The joint GON and DP investments in production and processing of commercial crops will help increase export earnings and reduce the trade deficit. Based on lessons learned, investments in commercial crops could be increased in the coming years. JSR's institutionalization is important to review progress, identify issues, and recommend and implement mitigation measures.

TRENDS AND PROGRESS TOWARDS ACHIEVING ADS INDICATORS

The ADS has a 10-year action plan, a 20-year vision, and seven vision components to guide agriculture sector indicators, including self-reliance, sustainability, competitiveness, inclusion, agriculture growth, livelihoods, and food and nutrition security—each in five-, 10- and 20-year increments (medium and long-term). ADS implementation has already completed six FYs (2015/16 to 2021/22). Compared to previous annual reviews, this review found increased consideration given to two of ADS's 16 indicators—self-sufficiency and trade-balance—by increasing production programs for fine rice and industrial maize through federal and provincial governments. For the remaining 14 indicators, as in previous years, the reviewers found that investments were made and annual outputs were delivered, even if not directly planned and intended as such. In the absence of an organized progress monitoring system, the review team encountered difficulties collecting relevant information on yearly trends and progress towards the ADS indicators. Of the 16 indicators, 12 were found generally on track and four—related to food grain self-sufficiency, agriculture trade, irrigated area development, and agriculture productivity growth—were still lagging. The following report sections present trends on the ADS first six-yearly indicators for FY2021/22 (there are no annual targets at this level in the ADS) using relevant data from various sources, and/or the latest available data of all seven vision components and corresponding indicators. These are presented in Table 2 and explained in subsequent paragraphs.

The ADS intends to accelerate agriculture growth through four strategic components (i) **governance** – promoting accountability, participation, predictability, and transparency, (ii) **productivity** – increasing land and labor productivity, improving efficiency of agriculture extension, research and inputs, and adopting sustainable practices in use of natural resources, and enhancing resilience to climate change and disaster, (iii) **profitable commercialization** – creating enabling investment climate and pursuing reforms on contractual management, taxes, and financial services, and (iv) **competitiveness** – building competent and efficient workforce knowledgeable to the country's comparative advantages on products and processes adaptable to natural environment.

Table 2.ADS Targets and Achievements

Vision Component	Indicator	Baseline (FY2015/16)	Targets (FY2021/22)	Intermediary Achievement/Trend (FY2021/22 or latest)	Sources of Information
Self-Reliance	Food grains self-sufficiency	16% food grains trade deficit	Reduce to zero deficit	Food grain trade deficit has decreased slightly to 14.07%. 12 Till mid-July of the FY2022/23, cereals worth NRs. 74.28 billion have been imported and NRs. 2.067 million equivalent exported (a trade deficit of NRs. 7,428.16 million).	Department of Customs https://www.customs.gov.np/ page/fts-fy-2078/79 Selected Indicators of Nepalese Agriculture: 2020/21, MOALD 2022
Sustainability	Year-round irrigated area (ha)	25.2% of cultivated land	35% cultivated land or 52,050 ha irrigated/ year	Of the total 1,512,432 ha cultivated land, 48% is irrigated, out of which 33% land has year-round irrigation. Development of 57,000 ha irrigated area was targeted for FY2021/22. However, available record shows only 3,005 ha irrigated area developed in FY2021/22 through federal level irrigation projects/program. Data on irrigation developed through provincial and local level projects/programs are not available.	Economic Survey of FY2021/22 (page 107, para. 7.48) 15th plan 2076/77-2080/81) Table 3.1, S.N 4.4.3 Page 39
	Soil organic matter (%)	Soil fertility at 1.96% organic matter	Soil fertility at 3% organic matter	Soil organic matter content varied across different agroecological zones. Terai and lower valleys show a medium level (1-2.5%), midhills show a high level (2.5-5%), whereas some areas in Terai have very low soil organic matter content.	Nepal Digital Soil Map 2021/22 https://soil.narc.gov. np/soil/soilmap/
	Degraded land (million ha)	3.72	2.88	Credible data was not available for degraded land in recent years. However, records show 15,460 ha and 20,882 ha degraded land restored in FY2017/18 and FY2018/19, respectively.	Ministry of Forest and Environment Records, 2019 (unpublished) GON, Second Nationally Determined Contributions submitted to UNFCCC, 2020

¹² JSR team estimated based on the proportion of cereal trade deficit (quantity) to total cereal requirement (quantity) (Total production plus import less export) i.e., cereal trade deficit (2021/22) (kg)/(total cereal requirement (kg) * 100 workforce knowledgeable to the country's comparative advantages on products and processes adaptable to natural environment.

Vision Component	Indicator	Baseline (FY2015/16)	Targets (FY2021/22)	Intermediary Achievement/Trend (FY2021/22 or latest)	Sources of Information
	Forest coverage (%)	44.7	44.7	In FY2020/21, 5.9 million ha area is covered by forest and 0.6 million ha by bushes and shrubs (44.8% of total land area).	Economic Survey FY2021/22 (page 115, para. 7.79)
	Land productivity (AGDP/ha) (\$)	3,278	4,184	Land productivity in terms of AGDP/ha is projected as \$3,497.5013.	Economic Survey, FY2021/22 (Annex 1.2, Annex Page 2)
	Agribusiness GDP contribution to overall GDP (%)	8	9	Agribusiness GDP perceived to have increased by 9.78% ¹⁴ in 2021/22, given GON's high priority in agribusiness, although no mechanism to annually monitor progress.	JSR team estimates based on selected indicators.
Competitiveness	Agriculture trade balance (\$ m)	1,123	1,073	Agriculture trade deficit in FY2021/22 has reached to USD3,004.5 million, which was USD2,011.7 million in FY2020/21.	Department of custom https://www.customs.gov. np/page/fts-fy-2077/78 & Department of custom https://www.customs.gov.np/ page/fts-fy-2078/79
	Agricultural exports (\$ m)	225	456	Agriculture export earnings of FY2021/22 estimated to be USD996.1 million, which was USD700 million in FY2020/21.	https://www.customs.gov. np/page/fts-fy-2077/78 & Department of custom https://www.customs.gov.np/ page/fts-fy-2078/79
Inclusiveness	Women or jointly owned agricultural land (%)	16	20	Women owned 19.7% of land in FY2020/21.	Central Bureau of Statistics, FY2020/21
	Farmers' access to agricultural programs (%)	18.2	22	Reached about 20% in FY2017/18. No estimation found for thereafter.	MOALD Progress Report, FY2017/18

¹³ Authors' calculation based on AGDP at current price as NRs. 138,086 crore, including forestry (Source: Economic Survey FY2021/22), and land under cultivation as 3,091,000 ha (Source: Selected Indicators of Nepalese Agriculture FY2020/2021). I USD = NRs. 127.73 (July 15, 2022).

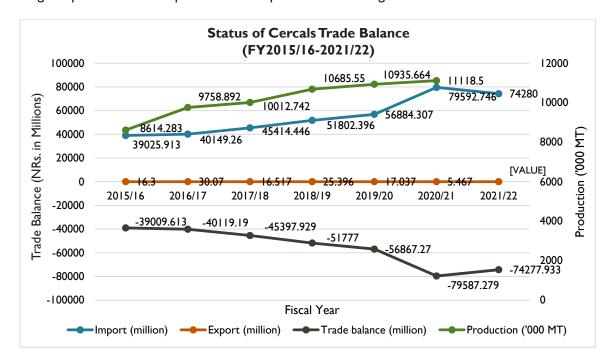
14 JSR estimate based on the AGDP share of tea, vegetables, milk, poultry meat, and poultry egg.

Vision Component	Indicator	Baseline (FY2015/16)	Targets (FY2021/22)	Intermediary Achievement/Trend (FY2021/22 or latest)	Sources of Information
Agricultural growth	Average AGDP growth (%)	2.23	4	AGDP is projected to grow by 2.3% in FY2021/22.AGDP was estimated to have grown by 2.6% in FY2020/21.	Economic Survey, FY2021/22 (Annex 1.1, Annex Page 1)
Livelihood	AGDP/labor (\$)	835	1,029	AGDP/labor is estimated to reach around USD 1,015 in FY2021/22.	Economic Survey, FY2021/22 (Annex 1.2, Annex Page 2)
	Rural poverty (%)	24.3	19	Rural poverty estimated to have decreased to 16.67% by FY2019/20.	Economic Survey, FY 2019/20 (Page 59, para 7.1)
Food and Nutrition Security	Food-based poverty (%)	27.6	19	Food based poverty was estimated at 23.1% in 2011. About 10% of the households were severely food insecure and 22% moderately insecure in 2016.	Nepal Demographic and Health Survey (NDHS), 2016 (Page 18, Table 2.2)
	Nutrition Stunting -below 5 year child (%)	37.4	29	Decreased to 25%.	Nepal Demographic and Health Survey, 2022, (Page 33 and 34)
	Underweight - below 5-year child (%)	30.1	20	Decreased to 19%.	
	Wasting - below 5 year	11.3	5	Decreased to 8%.	
	child (%) BMI – women having 18.5% or less	18.1	15	Decreased to 16% in FY2017/18.	Nepal Multiple Indicator Cluster Survey, 2019 (Page 44-45)

The progress presented above indicates many of the target are on track but there are concerns in case of some targets. Key aspects for each of the vision component indicators are provided below.

Component I: Self-Reliance

Elimination of the food grain trade deficit by FY2020/21 is the only indicator for **food grains self-sufficiency** under this component. Although food grain production has increased in recent years, agriculture trade data for FY2021/22 indicate a food grains deficit of around 14.07 percent against the national requirement. Further, the data for the first 10 months of FY2022/23 shows that cereals worth NRs. 47.3 billion have been imported, whereas the export value stands at NRs. 5.7 million, which indicates a trade deficit of NRs. 47.3 billion. The cereals production, import, and export trends during the period of ADS implementation is presented in the figure below.



Food Grain Trade Deficit and Share of Rice. Nepal's cereal trade deficit has been rapidly increasing in recent years. In FY2009/10, Nepal exported cereals worth NRs. 319.2 million and imported cereals worth NRs. 4,194.8 million, with a trade deficit of NRs. 4,162.9 million. The deficit increased rapidly reaching NRs. 74,278 million by FY2021/22 with imports of NRs. 74,280 million and export of NRs. 2.1 million. This poses challenges in attaining the ADS-projected food gain self-sufficiency in the medium-term.

The principal reason for this trend is people's changing food consumption habits from traditional food grains to higher quality rice and food items produced in other countries, mainly due to increased household incomes. Other reasons for increasing food imports include fluctuations in domestic food grain production due to varying rainfall conditions, lack of timely available of inputs to produce domestically, and the absence of information on food grain sold by farmers to traders who often export unofficially. The reviewers concluded that to reduce the trade deficit, Nepal's agriculture sector needs to align internal grain production with the changing food habits and restrict unofficial selling of domestic food grains.

To reverse the situation as envisaged by ADS, the country must create a conducive policy environment to promote production of high-yielding varieties; ensure farmers' easy access to inputs

and cost-effective technologies; encourage farmers to produce medium-fine and fine rice, which occupy a major share of the imported rice (high demand but low in-country production); encourage private millers to process high quality rice; and increase investments in research and development linked to productivity increases, pest control, and farm management.

Component 2: Sustainability

Irrigation development is a key indicator under this component. Available published data indicate a total irrigated area of 1,512,432 ha in FY2021/22 covering 48 percent of total cultivated area, and only 33 percent of cultivated land having year-round irrigation facilities. Against the annual national target of 57,000 ha and ADS target of 52,050 ha, only around 3,005 ha irrigation facilities were added in FY2021/22. There are two main reasons for the shortfall. First, the available data only covers irrigation developed for FY2021/22 through medium and large irrigation projects implemented by the federal government. Many of the ongoing projects have encountered budget shortages and slow implementation progress. Second, data on small irrigation projects implemented by subnational governments—which occupy a major share of the irrigation development investments and have potential to deliver outputs relatively quickly—are not included due to limited progress reporting mechanisms from subnational to federal level.

Increase in **soil organic matter** is another indicator under this component. Organic matter in soil is found to have increased to 3 percent in 2019¹⁵ based on 18,600 soil samples tested in 43 Terai, hill, and mountain districts from all provinces. This already meets the ADS target for the first five years, from the baseline of 1.96 percent in FY2015/16. However, there are regional variations. About 63 percent of the soils from the Terai have less than 2.5 percent organic matter, which is categorized as low and 37 percent of soils have 2.5-5.0 percent, categorized as medium, mainly due to the low use of organic inputs for cultivation. While, in the hill and mountain regions, 70 percent of soils have medium organic matter ranging from 2.5-5 percent, mainly due to the higher use of organic inputs for cultivation. It will be difficult to find annual progress on this indicator because there is no mechanism to annually assess organic content in soil.

On the **degraded land** indicator, it is estimated that such land has not increased from the baseline of 3.72 million ha in FY2015/16, although there is no system to annually monitor changes. Further, 15,460 ha and 20,882 ha degraded lands were restored in FY2017/18 and FY2018/19, respectively. Records on **forest coverage** show that 5.9 million ha area is covered by forest and 0.6 million ha by bushes and shrubs. In FY2021/2022, 44.8 percent of total land area is covered by forest and shrubs, compared to the baseline of 44.7 percent in FY2015/16. On the **land productivity** indicator, AGDP/ha is estimated at USD 3,497.5 in FY2021/22, which is slightly lower than the baseline, mainly due to the continued depreciation of the Nepalese rupee against the U.S. dollar. The productivity of land for food crops was estimated to have decreased slightly by 0.1 percent in FY2020/21 because of obstructions in fertilizer import due to the COVID-19 pandemic. However, there was a positive trend in the **Agribusiness GDP** indicator. Its share of overall GDP has increased to 9.78 percent in FY2021/22 from the baseline of 8 percent in FY2015/16, mostly due to the GON's high priority to develop agribusinesses through its own resources and from DP support.

Component 3: Competitiveness

The trend of the agriculture trade balance indicator has not been encouraging, as the agriculture trade deficit has continued increasing in recent years. The agriculture trade deficit was estimated at USD 3,004.5 million in FY2021/22, compared to USD 2,011.27 million in FY2020/21, a significant

¹⁵ Source: Nepal Seed and Fertilizer Project, 2019.

increase from the baseline of USD 1,123 million in FY2015/16. This increase indicates challenges in eliminating the agricultural trade deficit in the medium-term. The **agricultural export** indicator continues to increase from an estimated USD 700 million in FY2020/21 to an estimated USD 996.1 million in FY2021/22. This large increase against the baseline of USD 255 in FY2015/16 is due to a significant increase in export of refined palm and soybean oils to India. The review recommends a careful assessment of the type of agricultural commodities imported, consumers' changing preferences, and encouragement to farmers and agro-processors to produce by providing incentives and technologies and facilitating access to other inputs, including finance.

Component 4: Inclusiveness

Available data indicates that the **land owned by women** indicator is progressing satisfactorily. By FY2018/19, land owned by women increased to 19.7 percent compared to the baseline of 16 percent in FY2015/16, which almost meets the 20 percent ADS target for the medium-term. Although there is no mechanism in place to assess farmers' access to a**griculture extension program** nor to report progress under the federalized system, it is assumed that access has decreased since FY2018/19 mainly because of acute shortage of agriculture technical staff in municipalities, AKCs, and VHLSECs through which most farmers are expected to access extension services. Given agriculture operations now fall under the jurisdiction of the provincial and local governments and they face shortages of technical staff, the timely deployment of technical staff to these levels will be critical to restore, achieve, and sustain progress. Access to GON's agriculture extension services is estimated to have reached about 20 percent of farmers in FY2017/18 compared to the baseline of 18.2 percent in FY2015/16. However, the current situation is likely to improve only when the provincial and local governments complete the ongoing process of filling vacant agriculture technician positions. This trend suggests there is still the possibility of reaching 22 percent of farmers targeted for the medium-term.

Component 5:AGDP Growth

Agriculture gross domestic product (AGDP) is estimated to have grown by 2.3 percent in FY2021/22, which is below the annual growth target of 4 percent. AGDP was estimated to have grown by 2.64 percent in FY 2020/21. The growth rate was 5.1 percent in FY2018/19, following 2.8 percent growth during FY2016/17 FY2017/18 - at base price. Although AGDP growth was positive until FY2018/19, the rate decreased due to the impact of COVID-19, as agriculture is one of the pandemic's most impacted sectors.

Component 6: Livelihoods

Although there is no mechanism to annually monitor **agricultural labor productivity** indicator, in terms of AGDP/labor, estimates from available data indicate that labor productivity has reached USD 1,015 in FY2021/22 from the baseline of USD 835 in FY2015/16, which is slightly lower than the USD 1,029 targeted for FY2020/21. The change is attributed to a significant increase in agricultural wages in recent years due to the short supply of labor since many productive youths leave the country to work abroad every year. There is no mechanism for annual monitoring of the **rural poverty** indicator. Absolute poverty is assumed to have decreased to 16.67 percent in FY2019/20 from 21.6 percent in FY2015/16. Hence, it can be expected that rural poverty should also have decreased, even if at a slightly lower rate compared to overall poverty. The Multisector Poverty Indicators 2021 published by the National Planning Commission estimated rural poverty at 28 percent in 2019, although it considered several indicators related to health, education, and living standard.

Component 7: Food and Nutrition Security

As with several other indicators, there is no mechanism to assess progress on the **food-based poverty** indicator. Food-based poverty was estimated to be 23.1 percent in 2011. About 10 percent of households were severely food insecure and 22 percent moderately insecure in 2016. Further, the available data indicates that 17.9 percent of the population was severely food insecure and malnourished in FY2018/19. This provides basis to assume that food-based poverty should also have decreased from the baseline of 27.6 percent in FY2015/16. This reduction is mainly attributed to increasing remittances. Hence, the review recommends establishing an annual progress monitoring mechanism against this indicator to ascertain if food-based poverty is moving towards achieving the 19 percent targeted for the medium-term. The latest Nepal Demographic and Health Survey, 2022 shows that **severe stunting** (below 5-year children) decreased to 25 percent, **severe underweight** decreased to 19 percent and severe wasting decreased to 8 percent in 2021. Also, The Nepal Multiple Indicator Cluster Survey, 2019 shows BMI (women having 18 percent or less) decreased to 16.2 percent in FY2017/18 (HKI, 2019). These figures indicate that three Food and Nutrition Security indicators were met.

CONCLUSIONS, RECOMMENDATIONS, 16 AND SUBSEQUENT ACTIONS

A. Conclusions

The JSR mechanism continues to evolve as a relevant and viable platform for regular interactions between the GON and DPs (including between federal and subnational levels) on agriculture sector performance. Within this platform, participants jointly identify national priority issues, seek measures for resolutions, and promote accountability among key stakeholders for agriculture development. JSR has also emerged as an effective instrument for improving communications and coordination between the GON and DPs, and for jointly conducting periodic sector reviews, identifying key policy and operational issues, and pursuing actions to jointly address them. Therefore, the JSR mechanism should be further strengthened and institutionalized.

The issues identified and discussed in the second sector review and 2021 annual JSR meeting, as well as the program and policy action plans formulated out of them, were relevant and timely. MOALD, PAMs, and DPs have jointly implemented the action plans and delivered many of the desired outputs. The policy-related action plan involving subnational consultations on NAP and NAES was completed. After MOALD incorporates the feedback and the Cabinet approves the documents, it will help GON to uniformly apply the NAP and NAES provisions across the country. Similarly, the subnational orientation on CLID and SFDMD was also completed, which has improved effectiveness of their implementation, and feedback received can be used for future revisions.

MOALD, PAMs, and DPs also implemented the program-related action plan to increase investments in production and processing of fine rice, industrial maize, tea, and cardamom, which directly contributes to the GON's high priority agenda for attaining food and feed self-sufficiency and export promotion. However, to achieve sustainable outcomes, MOALD, PAMs, and DPs should further prioritize increasing production and processing of the above crops in their annual programs for the medium-term, which will also help realize ADS's outcome targets of food grain self-sufficiency, increased exports, and a reduced agriculture trade deficit.

Of the ADS's 16 vision indicators, 12 are on track based on FY2021/22 or latest available published data, proxy information, and estimation. The remaining four indicators related to food grain self-sufficiency, trade, irrigated area expansion, and agriculture productivity growth are lagging. Since there is no mechanism to annually assess progress against the indicators, and half of them do not fall under the jurisdiction of MOALD, assessing annual trends and progress towards the indicators may remain a challenge until subnational monitoring and reporting is addressed through the proposed review of ADS in FY2023/24.

Although financial data indicate increased investment in specialized programs for priority crops such as rice, maize, and other cereals and their related inputs, the outputs of this investment in terms of increase in area coverage, productivity, and total production can only be estimated due to the absence of monitoring and reporting mechanisms from municipal and provincial to federal levels. After the introduction of the federal governance system, monitoring and reporting responsibilities are unclear, and there are skill gaps at all three levels. Government representatives at all levels recognize this deficit.

¹⁶ Findings of the review (including conclusions and recommendations) were shared in the twelfth JSR Technical Committee meeting on April 17, 2023. The Committee endorsed the findings and decided to adopt the recommendations as agenda for the fourth annual JSR meeting on April 24-25, 2023.

B. Recommendations

The JSR mechanism, established jointly by the GON and DPs, should continue its operations, including holding bi-monthly Technical Committee meetings and annual JSR meetings expanded to subnational levels. Representatives from federal and provincial ministries, urban and rural municipalities, DPs, and the private sector should continue participating in annual JSR meetings. Representatives from relevant NGOs should also be included in the annual meeting. The GON should expedite institutionalization of the JSR mechanism as per the agreed roadmap and continue conducting annual joint reviews of the agriculture sector against ADS targets, identifying sector issues, agreeing on actions, and executing actions in a coordinated manner to sustainably contribute to enhanced sector performance.

Joint initiatives of MOALD, PAMs, and DPs to increase production of fine rice and industrial maize should continue through annual programs for the medium-term. Priority should also be given to supporting post-production operations such as milling, branding, and quality control. These actions can help reduce and eventually eliminate imports and contribute to attaining food grain self-sufficiency. Likewise, MOALD, PAMs, and DPs should continue increasing the programs for tea and cardamom production and processing to harness export potentials and contribute to an agriculture trade balance. These all are high on the national agenda.

MOALD should complete revisions to NAP and NAES aligning with the federalized context, subnational policies, priorities, and potentials, which will make it easier to uniformly apply NAP and NAES provisions throughout the country. MOALD should continue to align other existing policies and directives to the subnational context to ascertain their nationwide application. MOALD should also expedite finalization of the Agriculture Bill and the Agriculture Sector Joint Planning, Monitoring, Review, and Coordination Directives in line with the constitutional provisions, which will provide a legal framework for sector development in a collaborative and coordinated fashion. Future sector reviews should focus on analyzing and recommending mechanisms to strengthen linkages between subnational and federal policies and priorities, which is critical to attain desired sector results at national level.

While the justification for review of ADS in FY2023/24 is relevant to accommodate findings of PADS under formulation in all provinces, its objective assessment of progress on all 16 indicators, analysis of reasons for shortfalls, and suggestions on changes to indicators will be equally important. Such a comprehensive review should be conducted through a consultative approach that also proposes methodology to compute and report progress annually and at the end of future five-year periods.

The increasing food grain imports, particularly rice and maize, has been a matter of national concern, yet proper analysis on the principal causes for this growing dependency and mitigation measures is lacking. Therefore, conducting comprehensive, updated rice and maize value chain studies has become more important to help understand the issues and devise policy and program measures to reverse the situation.

The review suggests that MOALD should prioritize the establishment of a sector-wide monitoring and evaluation (M&E) system. Such a system could connect municipal, provincial, and federal levels, and maintain a national database. Without these mechanisms, sectoral planning, and progress reporting, including properly tracking ADS indicators, will continue to be challenging. Steps must be continued by MOALD to design an IT-based M&E and database system by using initiatives already undertaken by MOALD and DP-financed programs and projects, and by introducing recent applicable best practices within the country and elsewhere.

C. Subsequent Actions

The main purpose of the annual sector reviews is to identify and analyze sector performance and issues and recommend measures to address the issues. The identified issues become the agenda for discussions that produce agreed actions in the subsequent annual JSR meeting. Action plans are then incorporated in the annual programs of GON and DPs to be executed during the next fiscal year and beyond. Accordingly, MOALD organized the fourth annual JSR meeting jointly with DPs on April 24-25, 2023 with participation of other related federal ministries/institutions, PAMs, private sector, and municipalities.¹⁷ Honorable Minister for MOALD chaired the meeting. IFAD presented opening remarks on behalf of DPs. The meeting was divided into three parts - inaugural, technical, and closing. At the inaugural session, MOALD presented the JSR status, covering progress of the 2021 sector review recommendations, status of the actions agreed upon in the 2021 annual ISR meeting and progress towards the vision indicators of ADS for FY2021/22. MOALD's presentation indicated that most of the recommendations and agreed actions were implemented but required further work for their completion and final outputs. Similarly, 12 out of 16 ADS vision indicators were generally on track or slightly below target, while the four indicators related to food grain self-sufficiency, agriculture trade, irrigated area development, and agriculture productivity growth were still lagging (Table 2), justifying some of them to become the agenda for the fourth annual meeting and agreed actions to jointly address for desired results during the short- to medium-term.

As recommended by the fourth sector review and endorsed by the twelfth JSR Technical Committee meeting, five agenda items were identified — increasing area coverage and production of fine rice (main and spring seasons), industrial maize and potato to contribute to ADS vision indicator on food grain self-sufficiency (reducing imports); and increasing area coverage and production of fish, and increasing area coverage and production and improving processing, quality, and volume of tea and cardamom as program actions to contribute to ADS vision indicator on agriculture export and trade balance. Similarly, reformulation of the NAP and the NAES; formulation of the Agriculture Bill; Agriculture Sector Joint Planning, Monitoring, Review, and Coordination Directives; and review and revision of ADS were identified as policy actions to contribute to ADS outcome indicators on improved governance.

During the technical session, the above five agenda were discussed in groups, and draft action plans were prepared and presented at the plenary by each group. Outputs of the five working groups were summarized and presented in the beginning of the closing session. USAID delivered closing remarks on behalf of DPs. The Secretary of Sudurpaschim MOLMAC presented closing remarks on behalf of PAMs and expressed commitments to include relevant actions from the action plans in the annual program for FY2023/24. The Secretary of MOALD closed the session by expressing commitment to incorporate the agreed actions in the annual program for FY2023/24 and to closely monitor during implementation.

Subsequently, the Honorable Minister, MOALD endorsed the decisions with action plan (Appendix III) of the meeting and concurred with the actions to include in the annual program for FY2023/24. All the program- and policy-related actions have been incorporated in the annual program of MOALD, PAM and seleted DPS for implementation in FY2023/24, with the commitment to also include in subsequent annual programs for actions requiring multiple years to complete and deliver results.

¹⁷ A total of 105 participants (22 female), attended the meeting. Of the total, 59 were from MOALD (including departments and centers under it) and related federal ministries and institutions; 9 from PAMs; 17 from DPs; 4 from private sector; and 16 from urban and rural municipalities.

The fourth sector review recommended the agenda for the fourth annual JSR meeting based on analysis of relevant published data, topics of high national priority (including the Fifteenth Plan), key ADS indicators lagging that required GON and DP attention for improvement, and requisite process/steps needed to achieve desired outputs of the actions implemented in previous years.

APPENDICES

Appendix I. Rice Import Reduction: Measures to Sustain it in Future

Introduction

Rice is the principal food crop grown in all three agro-ecological regions (Terai, hills, and high hills) of Nepal. Because rice requires large volume of water during its maturity period, rice production is concentrated in the Terai and river-basins of hills. In a recent estimate, MOALD reported that the total area under rice cultivation was 1.48 million ha and the production was 5.13 million MT with an average yield of 3.47 MT/ha in 2022. The data on cultivated area, production, and yield of rice in the past 10 years are presented in Table 3. FY2021/22 remained very bad for rice as the production and yield were drastically decreased due to the damage caused by unprecedented rainfalls at the harvest time. Despite the decreased production compared to the three previous years, the quantity of total rice imports decreased by 15 percent in FY2021/22. The main purpose of this Appendix is to explain positive aspects of the reduced rice imports in FY2021/22, against the continuous increases in recent years, and suggest measures to sustain the decrease and reverse the situation, particularly by increasing domestic production in the medium- to long-run.

Table 3. Cultivated Area, Production, and Yield of Paddy

Year	Area (ha)	Production (MT)	Yield (MT/ha)
2012/13	1,420,570	4,504,503	3.17
2013/14	1,486,951	5,047,047	3.39
2014/15	1,425,346	4,788,612	3.36
2015/16	1,362,908	4,299,079	3.15
2016/17	1,552,469	5,230,327	3.37
2017/18	1,469,545	5,151,925	3.51
2018/19	1,491,744	5,610,011	3.76
2019/20	1,458,915	5,550,878	3.80
2020/21	1,473,474	5,621,710	3.82
2021/22	1,477,378	5,130,625	3.47

Source: Ministry of Agriculture and Livestock Development, 2022.

Background

Rice contributes the highest portion to total cereal grain production in Nepal, fulfilling people's dietary requirement, contributing to the national economy, and providing employment opportunities. Rice, maize, wheat, finger millet, buckwheat, and barley are the major cereals produced and consumed in Nepal. Rice occupied more than half (50.56 percent) of the total production of these cereals in FY2020/21.²¹ MOALD (2022) reported that the share of rice consumption per capita per year was 76 percent (137 kg) of total cereal grain consumption (181 kg). This suggests that Nepal's food security is highly dependent on rice. Among the agricultural commodities, rice contributes the most to the national economy. The share of rice in the agricultural gross domestic product (AGDP) is 13 percent and in the national gross domestic product (GDP) it is four percent. Being the largest sub-sector of

¹⁹ Department of Customs [DOC], various years

²⁰ MOALD, 2022

Nepalese agriculture, rice provides employment opportunities to 121 labor days per hectare from its production to harvesting. ²¹

On the other hand, domestic production is insufficient to meet the demand and a large volume of rice and related products are imported every year. This is mainly due to almost stagnant production and people's changing food habits. In the past, people used to consume different types of cereals produced by themselves. People's preference gradually shifted towards rice and away from other cereals. As a result, per capita annual rice consumption, which was 74 kg in 1975 reached 137 kg in 2022. In the last decade, the consumption of fine and fine long grain (premium) rice increased sharply in comparison to coarse and medium-fine types. This is mainly because of their preferred taste to Nepali consumers, good quality, improved incomes, and easy access at affordable prices.

Although premium rice consumption sharply increased in recent years, domestic production programs continued to support medium-fine and coarse rice because of their high yield potential. Although a program to increase production of fine and aromatic rice was implemented, it did not rise to the level of substituting for increasing imports. Consequently, the volume and value of rice imports increased every year in the past 10 years except for FY2015/16 and FY2021/22 (see Table 4).

Table 4. Total Imports of Rice and Related Products

Vest	Import ²³				
Year	Qty (MT)	Value (000' NRs.)			
2012/13	486,732	13,441,459			
2013/14	487,557	16,939,877			
2014/15	736,969	25,255,828			
2015/16	539,608	22,803,067			
2016/17	590,198	23,878,583			
2017/18	743,390	29,532,333			
2018/19	769,568	32,595,051			
2019/20	788,507	33,652,232			
2020/21	1,334,365	50,788,366			
2021/22	1,130,682	47,580,731			

Initial indications of the first five months suggest that rice imports will further decrease in FY2022/23. Through mid-December 2022, the total rice imported was 282000 MT (56 percent of the same period last year) valued at NRs. 13 billion (62 percent of the same period last year).²⁴

The data on domestic production and imports show that there are no clear linkages between these two as rice imports decreased when domestic production also decreased and vice versa. However, decreasing imports when efforts are made to promote fine rice, which constitute more than 75 percent of the total imports²⁵ is a matter of discussion and analysis.

²¹ Bhandari, Bhattarai, and Aryal, 2015

Helgi Library, 2022; MOALD 2022a

Department of Customs (DOC) from 2013 to 2022

²⁴ DOC, 2023

²⁵ KISAN II Project, 2022.

Methodology

This report Appendix was prepared by analyzing the secondary data published by different organizations and primary data collected by KISAN II Project and GON staff during field visits and interactions conducted on rice related matters. Agriculture statistics published by MOALD and foreign trade statistics published by the DOC are the main sources of secondary data used in this report. Primary data were collected from rice millers, farmers, researchers, KISAN II field staff, and policy makers during formal and informal interactions. The data collected from primary and secondary sources were tabulated and analyzed. The analysis is focused to find out reasons for the decreased rice imports in FY2021/22 through the first five months of FY2022/23.

Analysis and Results

Based on analysis of production and import data, and considering the changed domestic and international contexts, the following reasons have been identified for the decreased rice imports:

Imported rice sold in the same and next year. The review of the past 10 years' rice import data reveals that imports decreased in FY2015/16 and FY2021/22 in comparison to previous years. Following the partial lifting of COVID-19-related restrictions in 2021, Indian traders, who could not export their rice to a third country, exported a large volume to Nepal, reaping the benefits of an open border with Nepal. As a result, rice imports significantly increased in FY2020/21 (69 percent in quantity and 51 percent in price) in comparison to the previous year. A large volume of rice, which was imported in 2021 was sold in the same year and the following year, reduced the total import in FY2021/22 (15 percent in volume and 6 percent in price) despite a 491 thousand MT shortfall in domestic paddy production. While reviewing the past data, a similar situation was observed in FY2014/15 and FY2015/16. In FY2014/15, there was an earthquake of 7.6 magnitude (April 25, 2015) followed by several aftershocks. A huge amount of rice was imported that year by different organizations to distribute to earthquake affected people. Hence, rice imports increased by 51 percent in quantity and 49 percent in price in FY2014/15 compared to the previous year. After the promulgation of the Constitution of Nepal in September 2015, Madheshi ethnic people staged protests along India-Nepal border points causing an undeclared blockade from India, which reduced the imports of Indian goods. Due to sufficient rice stocks imported in FY2014/15 followed by the blockade, rice import was significantly decreased (27 percent in volume and 10 percent in price) in FY2015/16 despite the decrease in domestic paddy production by 490,000 MT compared to previous year.

Increasing trend of fine rice production in Nepal. To respond to the growing demand, the need to increase production of fine and fine long-grain types of rice has been realized both at policy and program levels. The GON (2020) has targeted to cover 35 percent of the area under rice with fine varieties by the end of FY2022/23. The fine rice area coverage was 17 percent in 2015. Although various "mission programs" were implemented in the past to promote fine and aromatic rice, program activities were conducted only with farmers and did not gain momentum. With an objective of working with the entire rice value chain, a Joint Rice Intervention Program was developed and implemented in 2020 by the GON and KISAN II Project based on the Rice Mill Model (RMM), which was adopted by KISAN II from its beginning. This model produced encouraging results in fine rice promotion, which has been expanded to the GON system. The RMM initiation by KISAN II and its expansion in the GON system is helping farmers to increase fine rice production and millers to increase the quality of produced rice. The share of fine rice area reached 33 percent in six KISAN II

²⁶ MOALD, 2015

districts (Kapilvastu, Dang, Banke, Bardiya, Kailali, and Kanchanpur) in July 2022. As a result, the share of domestic fine rice is gradually increasing in the market and is contributing to the reduced imports.

Earlier, medium-fine rice, which has low consumer demand, was counted in the fine rice category. However, after the introduction of RMM, fine and medium-fine varieties have been segregated, and fine varieties, which have highest market demand are promoted by KISAN II, GON, and other organizations. As a result, the consumption of domestic fine rice is increasing.

Effects of Russia-Ukraine conflict. The Russia-Ukraine conflict began on February 24, 2022. Russia is a big supplier of fuel and Ukraine is a big supplier of cereal grains in the world market. Food and fuel supply was disrupted, and their prices went up all over the world due to the conflict. India, which is the major supplier of food grains to Nepal, kept the export of wheat and rice in their watch list and discouraged their exports as soon as the conflict began. From May 2022, the Government of India (GOI) banned exports of wheat and flour. Similarly, in September 2022, the GOI banned broken rice export and imposed a 20 percent tax on paddy and raw rice (excluding parboiled and basmati rice) export. At the request of the GON, in October 2022, the GOI fixed a quota of 600,000 MT of paddy export to Nepal without added tax. The above factors also contributed to the reduced rice imports in Nepal in FY2021/22, and during the five months of FY2022/23.

Grain price rise in India: The prices of rice, wheat, and maize have gone up in India. The Department of Consumer Affairs of India mentioned that the daily average retail prices of rice were higher by 9 percent, wheat by 14 percent and wheat flour by 18 percent in 2022. Similarly, maize prices increased by about 34 percent compared to the previous year (The Hindu, 2022). The main factors behind the price rise included a reduced rice production forecast of about 6 million MT and 11 percent increase of non-basmati rice export; increase in production, processing, transportation, and storage costs of rice, wheat, and maize; and reduced supply of grain from Ukraine and Russia in the world market. The price increase in India has directly affected the price of these cereals in Nepal and reduced imports of rice as well as other grains in Nepal.

Credit crunch: To address the negative effects of COVID-19 in business and trade, the GON took measures through budget speeches and Nepal Rastra Bank monetary policies for two consecutive years (FY2020/21 and FY2021/22). These measures include increasing the loan limit and provision of interest-subsidized loans to priority sector businesses and industries; refinancing facility to banks; extending loan repayment periods; no interest penalties on overdue loans; and issuing loans against industry as collateral. These measures slowed loan repayments to the bank, and a sizable amount of funds remained outside the banking system. On the other hand, businesses were in loss; many people lost their jobs; and government spending on infrastructure and facilities was low due to COVID-19 restrictions. Consequently, commercial banks could not possess enough funds for lending and increased loan interest rates. Further, during the second half of FY2021/22, the GON discouraged imports to maintain required foreign currency reserves. All of these factors also contributed to reduced imports of goods, including rice, in the country.

Conclusion

The above analysis indicates that multiple factors contributed to reduced rice imports in FY2021/22. However, it should be viewed positively and GON and DPs should work together to increasing investments in rice production and meeting the country's market demand.

²⁷ MOF, 2020; MOF, 2021; NRB, 2020; and NRB, 2021

Recommendations

Amongst the reasons for decreased rice import described above, we do not have control over the reasons outlined, except for increasing production of fine rice in Nepal. There is a need to continue efforts in increasing fine rice production to reduce imports without depriving consumers' access to the type of rice they want to buy. KISAN II Project, and the interactions carried out with rice millers in various events, suggested the need for increasing domestic production of fine rice so that they do not need to rely heavily on imports to operate their mills. The area under coarse and medium-fine rice varieties (low priced and are produced more than the requirement) can be converted into fine varieties. The following are the specific recommendations to substitute domestic fine rice for imports in the medium to long runs:

- I. Provide high priority to increase the area coverage of fine rice varieties, linking producers with millers. In addition, promote production of fine long grain and aromatic rice varieties as per the requirement of the millers and target to reach area under fine and fine long grain rice varieties to 50 percent of the total rice area in five years. The RRM is an appropriate model to link producers with millers and to improve the quality of domestic fine rice.
- Increase seed production of domestic fine rice varieties to meet the requirement. Rice millers should be in contact with seed companies to provide timely seeds to farmers. Manage other inputs and machineries in collaboration with input suppliers, service providers, municipalities, AKCs, and PMAMP field offices.
- 3. Promote large-scale farming in close supervision of agriculture technicians to reduce the cost of production.
- 4. Improve drying and storage facilities of millers or other actors who purchase paddy from farmers.
- 5. Improve the processing efficiency of millers to minimize losses and increase the quality of processed rice.

Appendix II. Rationale and Scope of Review and Revision of ADS

Background

The Agriculture Development Strategy (ADS) is a twenty-year (2015-2035) vision for agriculture development in Nepal. The strategy was prepared by the Ministry of Agricultural and Livestock Development (MOALD) with support from 13 development partners (DPs). The strategy was approved by the Government of Nepal (GON) on July 26, 2015 as a major policy framework for agricultural transformation in the country. The ADS document presents the overall agriculture development strategy and a 10-year action plan with roadmap, which also includes visions, outcomes, outputs, and activities for development of the sector. The roadmap and action plan are formulated to attain its vision of a "self-reliant, sustainable, competitive, and inclusive agricultural sector that drives economic growth and contributes to improved livelihoods and food and nutrition security leading to food sovereignty." Various indicators and targets are included in the strategy to monitor progress towards the vision during ADS implementation. To achieve its vision, the ADS is expected to accelerate agriculture growth through four strategic components consisting of governance, productivity, profitable commercialization, and competitiveness. As per its provision, ADS is due for the first review and revision, for which MOALD has already taken initiatives. The main purpose of this Appendix is to present the justification/rationale and expected outputs of ADS review and revision and to serve as a common reference material for GON, DPs, and other stakeholders involved in the process.

Justification of ADS Review and Revision

ADS is a living document, which GON envisioned being updated every five years through regular monitoring and periodic review. There is also a provision for conducting an external review of ADS every five years to carry out necessary adjustments in the document (page 199, paragraph 565). The National ADS Implementation Committee meeting held on July 8, 2022 suggested to take steps for revision of ADS scientifically. The eleventh ADS JSR Technical Committee meeting held on November 4, 2022 also agreed to commence ADS review and revision led by MOALD with technical assistance from DPs. Therefore, MOALD plans to review and revise the ADS document in FY2023/24.

Rationale for ADS Review and Revision

Change in governance system - the context of federalization: The ADS was formulated in 2015, which was before the promulgation of the new Constitution of Nepal. Adoption of the new Constitution in 2015 has created a new structure with federal, provincial, and local governments. Upon transition to the new governance structure, the authority and mandate for agriculture development are devolved to the provincial and local governments. This changed governance context requires revision of the ADS to ensure that it is adopted and owned by decision makers at all tiers of the federal system.

Adjustment with Provincial Agriculture Development Strategy (PADS): In line with the diversity in potentials and priorities of provinces, all seven provinces have prepared a Provincial Agriculture Development Strategy (PADS) and are at different stages for approval from respective governments. For example, the Sudurpaschim Province Cabinet approved its PADS in October 2022. Issues, potentials, and priorities set by PADS need to be incorporated into the national ADS and the document needs to be adjusted in line with the federal governance system of Nepal.

Shift in national priority: Implementation of ADS has already completed its first seven years. Agriculture roles and associated challenges have changed during the period. For example: the contribution of the agriculture sector to GDP has decreased to about 23 percent. Similarly, the ongoing global financial recession, COVID-19 pandemic, and the adversities raised by global warming and climate change have created pressure for the GON to review and revise policies and strategies to cope with the changed situation.

Expected Outputs from Review and Revision

The main purpose of ADS review and revision is to adjust the strategy to the changed context. There will be two components, i.e., the review component and revision component in the process. First, the designated experts will review the ADS implementation status. Second, the strategy will be revised accordingly by the same team based on the review findings. Specifically, the whole study will be focused to conduct the following tasks to achieve the expected outputs:

- I. Review of federal and provincial ADS and related documents including agriculture policies, guidelines, and regulations
- 2. Conduct sub-sector analysis such as irrigation, climate change, land management, agriculture finance, credit and insurance, agribusiness, agriculture trade, and governance
- 3. Assess impact of ADS on agriculture development in Nepal
- 4. Collect information on the ADS indicators up to the output level and analyze the ADS implementation status
- 5. Identify gaps and constraints in ADS implementation including areas of poor performance
- 6. Suggest areas for revision and prepare action plans to address the gaps in ADS implementation and
- 7. Revise and finalize the ADS document to make it more implementable in the changed national and international context.

Appendix III. Decisions and Action Plan endorsed by Honorable Minister of MOALD

माननिय कृषि तथा पशुपन्छी विकास मन्त्रीज्यूको अध्यक्षतामा २०८० वैशाख ११ र १२ गते सम्पन्न कृषि विकास रणनीति कृषि क्षेत्र संयुक्त समीक्षा चौथो वार्षिक बैठकका निर्णयहरू

- 9. खाद्यान्नमा आत्मिनिर्भरता हासिल गर्ने सम्बन्धि कृषि विकास रणनीतिको परिकल्पना सूचक (ADS Vision Indicator) को लक्ष्यमा योगदान पुर्याउनका लागि मिसना तथा वास्नादार धान (वर्षे र चैते सिजन दुवै), औद्योगिक प्रयोजनमा खपत हुने मकै र आलुको उत्पादन प्रवर्द्धन गर्ने सम्बन्धि कार्यक्रमहरू वृद्धि गर्ने। यसको लागि संघीय तहमा कृषि तथा पशुपन्छी विकास मन्त्रालय र मातहतका सम्बन्धित निकायहरूको आगामी आ.व. २०८०/८१ को वार्षिक कार्यक्रममा यी बालीवस्तुहरूको प्रवर्द्धन सम्बन्धि कार्यक्रमहरूलाई प्राथमिकताका साथ समावेश गर्ने । त्यसैगरी प्रदेश तहमा पनि कृषि क्षेत्र हेर्ने सम्बन्धित मन्त्रालय र अन्तरगतका निकायहरूको आगामी आ.व. २०८०/८१ को वार्षिक कार्यक्रममा यी बालीवस्तुहरूको प्रवर्द्धन सम्बन्धि कार्यक्रमहरूलाई प्राथमिकताका साथ समावेश गर्न समन्वय गर्ने ।
- २. कृषिजन्य वस्तुको निर्यात वृद्धि एवं कृषि व्यापार सन्तुलनमा सुधार गर्ने सम्बन्धि कृषि विकास रणनीतिको परिकल्पना सूचक (ADS Vision Indicator) को लक्ष्यमा 'योगदान पुर्याउनका लागि मत्स्य, चिया र अलैंचीको उत्पादन प्रवर्धन गरी आयात प्रतिस्थापन र निर्यात प्रवर्धन गर्ने सम्बन्धि कार्यक्रमहरू वृद्धि गर्ने। यसको लागि संधीय तहमा कृषि तथा पशुपन्छी विकास मन्त्रालय र मातहतका सम्बन्धित निकायहरूको आगामी आ.व. २०८०/८९ को वार्षिक कार्यक्रममा यी बालीवस्तुहरूको प्रवर्धन सम्बन्धि कार्यक्रमहरूलाई प्राथमिकताका साथ समावेश गर्ने। त्यसैगरी प्रदेश तहमा पनि कृषि क्षेत्र हेर्ने सम्बन्धित मन्त्रालय र अन्तरगतका निकायहरूको आगामी आ.व. २०८०/८९ को वार्षिक कार्यक्रममा यी बालीवस्तुहरूको प्रवर्धन सम्बन्धि कार्यक्रमहरूलाई प्राथमिकताका साथ समावेश गर्न समन्वय गर्ने।
- ३. सुशासन सम्बन्धि कृषि विकास रणनीतिको प्रतिफल सूचक (Outcome Indicator) को लक्ष्यमा योगदान पुर्याउनका लागि कृषि क्षेत्रका प्रमुख नीति तथा रणनीतीहरूको समयानुकुल परिमार्जन/पुनर्लेखन गर्ने । यसको लागि राष्ट्रिय कृषि नीति,२०६१ र नेपाल कृषि प्रसार रणनीति,२०६३ लाई सरोकारवाला निकायहरूबिच छलफल एवं समन्वयमा आवश्यक प्रकृया पुरागरी परिमार्जन/पुनर्लेखन गर्ने ।
- ४. कृषि विकास रणनीति (ADS) को हालसम्मको कार्यान्वयन अवस्थाको समीक्षा गरी मुलुकको संघीय संरचना एवं राष्ट्रिय अन्तर्राष्ट्रिय परिवेश अनुकुल हुनेगरी समयानुकुल परिमार्जन गर्ने । साथै प्रादेशिक कृषि विकास रणनीति (PADS) स्वीकृत गर्न बाँकी रहेका प्रदेशहरूमा समन्वय गरी यथाशिघ्र प्रादेशिक कृषि विकास रणनीति जारी गर्न सहयोग गर्ने । त्यसैगरी, कृषि क्षेत्रमा तीनै तहका सरकारहरू बिच संयुक्त योजना तर्जुमा, अनुगमन, समीक्षा र समन्वय निर्देशिका निर्माण गरी अन्तर सरकार समन्वयलाई थप प्रभावकारी बनाउने ।
- ५. सुशासन सम्बन्धि कृषि विकास रणनीतिको प्रतिफल सूचक (Outcome Indicator) को लक्ष्यमा योगदान पुर्याउनका लागि मुलुकको संघीय संरचना एवं राष्ट्रिय अन्तर्राष्ट्रिय परिवेश अनुकुल हुनेगरी कृषि विधेयक (Agriculture Bill) निर्माण कार्य अभिलम्ब सम्पन्न गर्ने ।
- ६. माथिका निर्णयहरूमा उल्लेख भएका विषयवस्तुहरूलाई कार्यान्वयनमा लैजान आवश्यक कार्ययोजना (Action Plan) तयार गर्ने । कार्ययोजनामा समावेश भएका क्रियाकलापहरूलाई कार्यान्वयनमा लैजान संघीय मन्त्रालय मार्फत प्रदेश र स्थानीय तह समेतको आगामी आ.व. २०८०/८१ को वार्षिक कार्यक्रममा उच्च प्राथमिकताका साथ समावेश गरी विकास साझेदार एवम् सरोकारवालाहरूको सहयोग तथा समन्वयमा कार्यान्वयन, अनुगमन, रिपोर्टिङ तथा समीक्षा गर्ने ।

2") S

रिया पश्यम्भी वकास मन्त्री

Action Plan of 4th Annual Meeting of Agriculture Development Strategy (ADS) Joint Sector Review (JSR) (24-25 April 2023)

Agenda 1: Contributions to ADS Vision Indicator on Food Grain Self-Sufficiency

Action Plan 1.1: Increasing area coverage and production of fine rice (main and spring seasons)

S.	Actions	Indicator	Target	Timeline	Main	Supporting
No.					Responsibilities	Responsibility
1	Conduct a comprehensive value chain study of rice and maize	Rice and maize value chain study report	1	June 2024	CCDBAC, DOA, MOALD	DPs, coordinated through JSR
2	Train provincial and local staff on monitoring and progress reporting	Number of provincial and local staff trained	1	June 2024	CCDBAC, DOA, MOALD	DPs, coordinated through JSR
3	Develop rice breeding and hybrid rice facilities	Rice breed and research facilities established	1	FY2022/23 - 2024/25	NARC	MOALD, PAMs, municipalities, private sector, DPs
4	Develop and maintain critical mass of breeder program	Number of trained and newly recruited breeder	5	FY2022/23 - 2024/25	NARC	MOALD, MOF
5	Access and utilize IRRI facilities for speed breeding	MOU with IRRI	1	FY2022/23 - 2023/24	NARC	MOALD, MOF
6	Enhance access to regional framework (seeds without boarder)	Number of rice varieties developed	5	FY2022/23 - 2024/25	NARC	MOALD, MOF
7	Utilizing local landraces in varietal	Number of rice landraces characterized	20	FY2022/23 - 2024/25	NARC	MOALD, MOF
8	Develop irrigation facilities and increase access to irrigation	Increased irrigated area	250,000 ha	FY2022/23 - 2024/25	MOALD, MOEWRI	DOA, PAMs, municipalities, private sector, DPs
9	Develop insurance and drying facility	Number of insured farmers, and drying facilities	1,000 farmers insured; 10 facilities developed	FY2022/23 - 2024/25	MOALD, DOA	MOF, DPs
10	Promote access and use of	Number of farmers	5,000	FY2022/23 -	MOALD, DOA	MOF, DPs

· Parali

loint Scoro

Secretary

S. No.	Actions	Indicator	Target	Timeline	Main Responsibilities	Supporting Responsibility
	machineries in farming	using machines in farming		2024/25		
11	Link producers with market	Number of producers linked with market	5,000	FY2022/23 - 2024/25	All value chain actors	MOALD, MOF, DPs
12	Develop specialty rice variety and disseminate	Specialty rice variety developed and disseminated	5	FY2022/23 - 2024/25	NARC	IRRI, MOALD, MOF
13	Develop value added products scale up	Value added products developed and scaled	10	FY2022/23 - 2024/25	NARC, DFTQC	MOALD, MOF, PAMs
14	Establish mechanism/methodology for monitoring improved cropped area, production, and yield estimation	Crop monitoring system established, and progress monitored (database established)	1	FY2022/23 - 2024/25	NARC, PAMs, municipalities	ICIMOD, WFP, MOF
15	Develop strengthened and coordinated product plan	Plan prepared and executed	1	FY2022/23 - 2023/24	MOALD, DOA, CCDBAC	PAMs, AFU, private universities

Purit Secretary

Action Plan of 4th Annual Meeting of Agriculture Development Strategy (ADS) Joint Sector Review (JSR) (24-25 April 2023)

Agenda 1: Contributions to ADS Vision Indicator on Food Grain Self-Sufficiency

Action Plan 1.2: Increasing area coverage and production of industrial maize

S. No.	Actions	Indicator	Target	Timeline	Main Responsibilities	Supporting Responsibility
1	Promote domestic hybrid varieties, strengthen input management, and crop protection measures, and link seed producers with suppliers	Domestic varieties increased and input better managed	5	FY2022/23 - 2024/25	NARC, private sector	MOALD
2	Promote production of winter maize	Area under winter maize increased	15 locations	FY2022/23 - 2024/25	MOALD, PAMs and municipalities	DPs
3	Conduct awareness program on winter maize (showing benefits, comparing with alternative crops), disseminate communication materials about good quality seed, proper sowing, harvesting, and shelling machineries.	Increased area under winter maize	20 locations	FY2022/23 - 2024/25	MOALD, PAMs and municipalities	DPs
4	Promote high yielding high hybrid varieties	Number of varieties developed	6	FY2022/23 - 2024/25	NARC	MOALD, SQCC, private sector
5	Expand promising varieties, promote research facilities and increase collaboration with international organization	Expansion of program and collaboration	5	FY2022/23 - 2024/25	NARC	MOALD, international organizations
6	Increase drying facilities, and create awareness of producers and value chain actors about benefit of using shelling machineries	Increase in price	5	FY2080/81	MOALD, DFTQC	Farmers, cooperatives, DPs
7	Conduct regular meeting and promote coordination among value chain actors	Number of coordination meetings	2 meetings per year	FY2080/81	MOALD, farmer groups, cooperatives, private sector	DPs

fire

Secretari

Secretary

Action Plan of 4th Annual Meeting of Agriculture ប្រាប់ (24-25 April 2023)

Agenda 1: Contributions to ADS Vision Indicator on Food Grain Self-Sufficiency

Action Plan 1.3: Increasing area coverage and production of potato

S. No.	Actions	Indicator	Target	Timeline	Main Responsibilities	Supporting Responsibility
1	Conduct varietal improvement program	Varieties developed	3	FY2022/23 -2024/25	NARC	DOA, TA from DPs coordinated through JSR
2	Increase production of quality seed	Quality potato seed produced and available basic-1) PBS SEED-10 LAKH PO	100 mt 10	FY2022/23	Government Farm, NARC, PMAMP, SQCC	DOA, farmer groups and cooperatives
		PBS Seed	10 Lakh Tuber	FY2022/23	Government Farm, NARC, Registered Tissue Culture Lab in Private Sector	DoA/DPs (coordinated through JSR)
3	Develop package practices	Booklets and pamphlets published	1,000 copies	FY2022/23	NARC	DPs (coordinated through JSR)
4	Develop capacity of scientists and experts	Number of scientists and experts trained	25	FY2022/23	DPs (coordinated through JSR)	NARC, DOA
5	Conduct large scale field demonstration	Increased area under private sector production	50 ha	FY2022/23	PMAMP	MOALD
6	Mainstream private sector involvement in large scale production (in recovered river basins, institutional lands, abandoned lands)	Area under private sector production increased	50 ha	FY2022/23	PMAMP	MOALD
7	Develop community, public and private cold stores	Number of cold-stores constructed	30	FY2022/23	PMAMP, DOA, PAMs	Farmer groups, cooperatives, private firms,

fuit

Secretory

S.	Actions	Indicator Kathmandu	Target	Timeline	Main	Supporting
No.					Responsibilities	Responsibility
						and local
						governments
8	Develop requisite postharvest technologies	Number of postharvest	3	FY2022/23	NARC	DOA, DPs
		technologies tested				(coordinated
						through JSR)
9	Develop postharvest package practices de	Number of package	3	FY2022/23	NARC	DOA
		practices published				
10	Promote private investment in potato	Number of industries	2	FY2022/23	Private firms	MOALD, MOF,
	value chain industries	established				NRB, Fls, and
						MFIs

\

Joint Secretar

Agenda 2: Contributions to ADS Vision Indicator on Agriculture Export/Tread Balance

Action Plan 2.1: Increasing area coverage and production of fish

S. No.	Actions	Indicator	Target	Timeline	Main Responsibility	Supporting Responsibility
1	Increase production of fish	Quantity of fish produced increased	350,000 mt (including 108,000 mt current)	2033 (24,200 mt for FY2022/23	PMAMP, PAMs and municipalities	MOALD
2	Utilize unused land, hydropower water reservoirs, and natural water bodies	Area coverage increased	45,000 ha	2028 (7,500 for FY2022/23)	PMAMP, PAMs, and municipalities	MOALD
3	Increase productivity of pond aquaculture (species diversification, feed, technology	Productivity mt/ha increased	7 mt	2028 (1.4 for FY2022/23)	PMAMP, PAMs, private sector, municipalities	MOALD, World Fish Center, DPs
4	Disseminate technology nursery management, hatchery, aeration, disease, and pest management technologies	Application of new technologies increased	270 million fry	2028 (54 for FY2022/23)	PMAMP, PAMs, private sector, municipalities	MOALD, World Fish Center, DPs
5	Develop capacity in disease diagnostic, lead farming and technical human resource	Skill number of staff increased	2500 (including 50 specialists)	2028 (500 for FY2022/23)	PMAMP, PAMs, private sector, municipalities	MOALD, World Fish Center, DPs
6	Develop and disseminate new technologies on product diversification, bonelessetc	Level of product diversified	50	2028 (10 for FY2022/23)	PMAMP, PAM, private sector, municipalities	MOALD, World Fish Center, DPs
7	Establish quality control and risk management mechanism	Quality enhanced and risk managed	5	2028 (1 doe FY2022/23)	PMAMP, PAM, private sector, municipalities	MOALD, DPs

Lil.

Secre

Agenda 2: Contributions to ADS Vision Indicator on Agriculture Export/Tread Balance

Action Plan 2.2: Increasing area coverage and production, and improving processing, quality, and volume of cardamom exports

S. No.	Actions	Indicator	Target	Timeline	Main Responsibility	Supporting Responsibility
1	Increase production, and improve processing and quality assurancefacilities (Ilam, Taplejung, Panchthar, Teherathum, Dhankuta, and Bhojpur)	Increased production area, including availability of disease-free saplings	1,000 ha	FY2022/23	PAMs, farm centers, NARC	MOALD/ DPs
2	Increase program for production, productivity, and export	Changes in production, productivity, and export	1,000 ha area increase, 0.3 mt/ha productivity increase, and 95% of total production sold	FY2022/23	PAMs, municipalities, Association of Cardamom Entrepreneurs	MOALD/ DPs
3	Improve processing capacity and production quality	Use of improved dryer and disease-free production	Increase in dryer use by 10-12%	FY2022/23	PAM, municipality, NARC, NCPVSDC	MOALD/ DPs
	Strengthen value chain and export promotion	Adoption of GAP, warehouse, tax and duties, separate HS codes	1	FY2022/23	PAMs, training centers, MOFA, MOCS, cardamom entrepreneurs	MOALD/ DPs
5	Expand cultivated area under cardamom	Cultivation area increased	2,500 ha	FY2022/23	PAMs, municipalities	NARC, MOALD/
6	Strengthen and adoption of monitoring and evaluation practices	Progress monitored and report available with disaggregated data	1	FY2022/23	PMAMP, AKCs, DOA, municipalities	MOALD/ DPs

Juil.

(aeorein 3/1)



Agenda 2: Contributions to ADS Vision Indicator on Agriculture Export/Tread Balance

Action Plan 2.3: Increasing area coverage and production, and improving processing, quality, and volume of tea exports

S.	Actions	Indicator	Target	Timeline	Main	Supporting
No.					Responsibility	Responsibility
1	Increase production,	Increased area, input supply,	- Area increase:	FY2022/23	NTCDB, PAMs,	NARC/ DPs
	processing, and quality	orchard management,	1,000 ha	- 2023/24	municipalities	
	assurances (covering	improved quality,	- Productivity			
	productivity, irrigation,	and price	increase: 500 kg per			
	fertilizer, orchard		plant/year			
	management, electricity,		- Specialty tea			
	plucking, laboratories, Gl		production increase			
	registration)		- 50%			
			- Price increase			
			Rs2,000/kg			
2	Improve processing capacity	Use of improved technology,	Increase trademarks	FY2022/23	NTCDB	MOALD/ DPs
	and product quality	new machineries, trademark,	users from 29 to 50			
		and organic certification				
3	Establish of auction yard	Auction yard constructed	1	FY2022/23	NTCDB	MOALD/ DPs
4	Strengthen value chain	Increased irrigationfacilities;	Several events	FY2022/23	NTCDB	MOALD, PAMs,
	program	number of trade expo, tea				MOFA, MOICS,
		testing and intl. events				tea association
		participated; agreements				
		with buyers, govts of				
		importing				
		countries;increased export				
		subsidy (from 5 to				
		10%);equipment distributed;		i		
		and infrastructure		- 104.1		
	7	developed.		1		

Rit

Secreta

Agenda 3: Contributions to ADS Outcome Indicator on Improved Governance

Action Plan 3.1: Reformulation of National Agriculture Policy(NAP) 2061 (2004)

S. No.	Actions	Indicator	Target	Timeline	Main Responsibility	Supporting Agency
1	Policy drafting	NAP draft	Final draft	July 2023	MOALD, Policy Section	TA from USAID
2	Stakeholder consultations: local level, province level, federal level	Consultation workshops	8	Already completed	MOALD, PAMs	TA from DPs
3	Consultation with farmer association, commodity associations, agriculture societies, private sector, cooperatives, and development partners	Consultation workshops and meetings	5	July 2023	MOALD, Policy Section	TA from USAID
4	NAP validation and submission to Cabinet for approval	Validation workshop	1	August 2023	MOALD, Policy Section	TA from USAID
5	Policy approval	Approved from Cabinet	1	September 2023	MOALD	
6	Provincial Agriculture Development Strategy (PADS) approval	Approved PADS	6	August 2023	Provincial Agriculture Ministries	MOALD, ADD

furt

Agenda 3: Contributions to ADS Outcome Indicator on Improved Governance

Action Plan 3.2: Review and Revision of the Agriculture Development Strategy (ADS)

S. No.	Actions	Indicator	Target	Timeline	Main Responsibilities	Supporting Responsibility
A. Re	view of ADS Implementation					, mosponomety
1	Concept note preparation	Concept note for ADS review and revision	1	Already prepared	MOALD, ADSCS	
2	TOR finalization for TA	Finalized TOR	1	May 2023	MOALD, ADSCS	
3	Technical Committee (TC) established	Established TC	1	May 2023	MOALD, ADD	
4	TA team formed	Consultants/experts hired	As per need	July 2023	MOALD	TA from DPs coordinated through JSR
5	Desk review, field assessment and information/data collection	Data/information collected	As per need	November 2023	MOALD	TA from DPs coordinated through JSR
6	Final review report	Final ADS review report	1	December 2023	MOALD	TA from DPs coordinated through JSR
B. Re	vision of ADS					
1	First draft	Revised draft ADS	1	January 2024	MOALD	TA from DPs coordinated through JSR
2	National level validation workshop	Validation workshop conducted	1	February 2024	MOALD	
3	Final draft	Feedback on revised draft ADS		March 2023	MOALD	
4	Feedback from sectoral			April 2024	MOALD .	

forf



S. No.	Actions	Indicator	Target	Timeline	Main	Supporting
140.	ministries and related institutions				Responsibilities	Responsibility
5	Approval from Cabinet		1	May 2024	OPMCM	MOALD
6	Prepare local level plan of action guidelines as per revised ADS	Guideline template prepared	1	June 2024	MOALD	Municipalities, coordinated through JSR
7	Formulate model local level plan of action	Plan of action prepared	Several	June 2024	Municipalities	MOAL and DPs coordinated through JSR

fuit

int Secretary

Agenda 3: Contributions to ADS Outcome Indicator on Improved Governance

Action Plan 3.3: Reformulation of Nepal Agriculture Extension Strategy (NAES)

S. No.	Actions	Indicator	Target	Timeline	Main Responsibilities	Supporting Responsibility
1	Concept note and TOR preparation	Concept note for NAES prepared	1	August 2023	MOALD, ADSCS	,
2	TA team formation	Consultants/experts hired	2	November 2023	MOALD	TA from DPs coordinated through JSR
3	Desk review and field level consultations for information/data collection	Information/data collected		February 2024	MOALD	TA from DPs coordinated through JSR
4	Preparation of first draft	First draft prepared	1	March 2024	MOALD	TA from DPs coordinated through JSR
5	National level consultations	Consultations conducted	4-5	April 2024	MOALD	TA from DPs coordinated through JSR
6	Validation workshop	Workshop report	1	May 2024	MOALD	2008,731(
7	Final draft submission to Cabinet	Final NAES draft	1	June 2024	Cabinet	MOALD

funt.



Agenda 3: Contributions to ADS Outcome Indicator on Improved Governance

Action Plan 3.4: Formulation of Agriculture Bill/Act

S.	Actions	Indicator	Target	Timeline	Main	Supporting
No.					Responsibilities	Responsibility
1	Task team formation	Task team formed	1	May 2023	MOALD	
2	Preliminary draft preparation	Draft version available	1	May 2023	MOALD	Task team
3	Discussions within MOALD on the draft version	Minutes of discussion	1	May 2023	MOALD	Task team
4	Subnational level consultations on the draft	Event report	7	June 2023	MOALD, provincial agriculture ministries (PAMs)	MuAN, NARMIN, DPs (coordinate through JSR)
5	Incorporation of feedback from subnational consultations	Draft version – 1 available	1	July 2023	MOALD	Task team
6	Federal level consultation workshop	Event report	1	August 2023	MOALD	TA from DPs coordinated though JSR
7	Consultations with parliamentary committee	Minutes	1	September 2023	MOALD	Task team
8	Dissemination though MOALD website for public feedback	Draft version – 2 available	1	October 2023	MOALD	
9	Final draft submission to MOALD	Draft version - 3	1	November 2023	MOALD	Task team

forf



Agenda 3: Contributions to ADS Outcome Indicator on Improved Governance

Action Plan 3.5: Formulation of Agriculture Sector Joint Planning, Monitoring, Review, and Coordination Directives

S.	Actions	Indicator	Target	Timeline	Main	Supporting
No.					Responsibilities	Responsibility
1	Task team formation	Team formed	1	May 2023	MOALD	
2	Preliminary draft formation	Preliminary draft version prepared	1	May 2023	MOALD	Task team
3	Draft version discussed within MOALD	Minutes of discussions	1	June 2023	MOALD	Task team
4	Subnational consultations on draft document	Event report	1	July 2023	MOALD, PAMs, Task team	TA from DPs coordinated through JSR
5	Incorporate subnational consultant workshop	Draft version – 1 available	1	August 2023	MOALD	Task team
6	Federal level consultation workshop	Workshop report	1	September 2023	MOALD	Task team
7	Final draft submission to MOALD	Draft version – 2 available	1	October 2023	MOALD	Task team

Port

- Secretary

REFERENCES

- Bhandari, N.B.; Bhattarai, D.; Aryal, M., 2015. Cost, Production, and Price Spread of Cereal Crops in Nepal: A Time Series Analysis. Agribusiness Promotion and Marketing Development Directorate, Department of Agriculture, Lalitpur.
- CBS, 2021. National Sample Survey of Agriculture FY2020/21, Central Bureau of Statistics, Kathmandu.
- CBS, 2020. Nepal Multiple Indicator Cluster Survey 2019, Survey Findings Report. Kathmandu, Nepal: Central Bureau of Statistics and UNICEF, Kathmandu.
- CBS, 2022. National Sample Survey of Agriculture FY2021/22, Central Bureau of Statistics, Kathmandu.
- DOC (Department of Customs), Various Years. Foreign Trade Statistics. DOC, Kathmandu.
- DOC, 2023. Foreign Trade Statistics of FY2022/23. Retrieved on 9 January 2023 from https://customs.gov.np/page/fts-fy-2079/80
- DOC, 2021. https://www.customs.gov.np/page/fts-fy-2077/78
- DOC, 2022. https://www.customs.gov.np/page/fts-fy-2078/79
- DOC, 2021. https://customs.gov.np/page/fts-fy-2077/78
- DOC, 2022. https://www.customs.gov.np/page/fts-fy-2078/79
- DOH, 2020. Nepal Demographic and Health Survey for FY2019/20 (page 59, para. 7.1).
- DOH, 2022. Nepal Demographic and Health Survey for FY2021/22 (page 33 and 34).
- GON, 2020. Second Nationally Determined Contributions, submitted to UNFCCC, 2020.
- GON, 2020. The Fifteenth Plan (FY2019/20 FY2023/24). National Planning Commission, Singhadurbar, Kathmandu.
- HelgiLibrary, 2022. Rice Consumption Per Capita in Nepal. Retrieved on 9 January 2023 from https://www.helgilibrary.com/indicators/rice-consumption-per-capita/nepal/
- HKI, 2019. Suaahara II Good Nutrition Program, Annual Survey Year III (2019). Helen Keller International, Kathmandu, Nepal.
- JSR, 2023. JSR Team Estimates based on Selected Agriculture Indicators.
- KISAN II, n.d. Comparison of Nepali and Indian Value Chains for Key Cereals in the Nepal market. Knowledge-Based Integrated Sustainable Agriculture in Nepal (KISAN II), Sanepa, Lalitpur.
- MOALD, 2015. Rice Varietal Mapping in Nepal: Implication for Development and Adoption. Crop \
 Development Directorate, Harihar Bhawan, Lalitpur.
- MOALD, 2021. Selected Indicators of Nepalese Agriculture. Planning and Development Cooperation Coordination Division, MOALD, Kathmandu.
- MOALD, 2022. Statistical Information on Nepalese Agriculture FY2020/21. MOALD, Kathmandu.
- MOALD, 2022a. Press Release of 29 December 2022 on Rice Production Forecast. MOALD, Kathmandu.

MOALD, 2022. Selected Indicators of Nepalese Agriculture, FY2020/21.

MOALD, 2018. Annual Progress Report of FY2017/18.

MOFE, 2019. Ministry of Forest and Environment Records, 2019 (unpublished).

MOF, 2022. Economic Survey of FY2020/21 (page 107, para.7.48).

MOF, 2022. Economic Survey of FY2020/21 (page 115, para. 7.79).

MOF, 2022. Economic Survey of FY2021/22 (Annex 1.2, Annex page 2).

MOF, 2020. Budget Speech of FY2020/21. Ministry of Finance, Singhadurbar, Kathmandu.

MOF (2021). Public Announcement of Income-Expenditure Details of Fiscal Year 2021/22. Ministry of Finance, Singhadurbar, Kathmandu, Nepal

NPC, 2018. Fifteenth Plan of Nepal (Table 3.1, S.No. 4.4.3, page 39.

NARC, 2022. Nepal Digital Soil Map FY2021/22 (https://soil.narc.gov.np/soil/soilmap/)

NRB, 2020. Monetary Policy of FY2020/21. Nepal Rastra Bank, Baluwatar, Kathmandu, Nepal

NRB, 2021. Monetary Policy of FY2021/22. Nepal Rastra Bank, Baluwatar, Kathmandu, Nepal

The Hindu, 17 October 2022. Price Increase in Wheat and Rice Normal; Will Intervene in Market in Case of Abnormal Rise: Food Secretary. Retrieved 9 January 2023 from https://www.thehindu.com/business/Economy/price-increase-in-wheat-rice-normal-will-intervene-in-market-in-case-of-abnormal-rise-food-secretary/article66022347.ece

Winrock International, 2020. Landscape Analysis of Rice Milling Industries in Nepal. Feed the Future, KISAN II, Sanepa, Lalitpur

Printing and Publication Sponsored by:

USAID's Feed the Future Nepal Knowledge-based Integrated

Sustainable Agriculture in Nepal (KISAN II) Project