

NSQF QUALIFICATION FILE GUIDANCE

Version 6: Draft of 08 March 2016

CONTACT DETAILS OF THE BODY SUBMITTING THE QUALIFICATION FILE

Name and address of submitting body:

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List of documents submitted in support of the Qualifications File

1. Qualifications Pack of Agricultural Machinery-Repair and Maintenance Service Provider
2. Industry Validation
3. Career Map of Agricultural Machinery-Repair and Maintenance Service Provider

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SUMMARY

Qualification Title	Agricultural Machinery-Repair and Maintenance Service Provider
Qualification Code	AGR/Q1111
Nature and purpose of the qualification	Nature of the qualification - a Qualification Pack (QP) The main purpose of the qualification - to train the incumbent for making repair and maintenance services available to the farmers
Body/bodies which will award the qualification	Agriculture Skill Council of India (ASCI)
Body which will accredit providers to offer courses leading to the qualification	Agriculture Skill Council of India (ASCI)
Body/bodies which will carry out assessment of learners	Agriculture Skill Council of India (ASCI)
Occupation(s) to which the qualification gives access	Agriculture Machinery Repair and Maintenance Service Provider
Licensing requirements	N/A
Level of the qualification in the NSQF	Level 5
Anticipated volume of training/learning required to complete the qualification	200 hours
Entry requirements and/or recommendations	Class 12, preferably 1 year experience in a related field
Progression from the qualification	Farm Workshop/Service Manager
Planned arrangements for the Recognition of Prior learning (RPL)	RPL assessment will be as per normal ASCI assessment process.
International comparability where known	Not done as yet
Date of planned review of the qualification.	01/07/2019

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Formal structure of the qualification			
Title of unit or other component (include any identification code used)	Mandatory/ Optional	Estimated size (learning hours)	Level
1. AGR/N9910 Undertake entrepreneurship activities	Mandatory	20	5
2. AGR/N1137 Prepare for setting up repair and service centre	Mandatory	50	5
3. AGR/N1138 Set up and operationalize repair and maintenance centre	Mandatory	70	5
4. AGR/N1139 Ensure proper documentation and record keeping related to the farm mechanization unit/service centre	Mandatory	40	5
5. AGR/N9903 Maintain health and safety at the workplace	Mandatory	20	5

Please attach any document giving further detail about the structure of the qualification – eg a Curriculum Document or a Qualification Pack.

Give the titles and other relevant details of the document(s) here. Include page references showing where to find the relevant information.

Qualification Pack of Agriculture Machinery Repair and Maintenance Service Provider - Annexure 1

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SECTION 1 ASSESSMENT

Body/Bodies which will carry out assessment:

Body/Bodies which will carry out assessment:

Name of assessment body:

Agriculture Skill Council of India (ASCI)

If there will be more than one assessment body for this qualification, give details.

ASCI affiliated assessment bodies.

1. Aspiring Minds Pvt Ltd
2. Anant Learning & Development Pvt Ltd
3. Assess People Services India Pvt Ltd
4. Trendsetters Skill Assessors Pvt Ltd
5. Mettl
6. Manipal City & Guilds
7. SP Institute of Workforce Development
8. Multi Skill Assessor Guild

More Assessment Agencies are being empanelled to cover wider geographical area

How will RPL assessment be managed and who will carry it out?

RPL will be based on the same approved Qualification Pack and Assessment Criteria mentioned in the Qualification Pack and will be carried out as per normal ASCI assessment process.

Describe the overall assessment strategy and specific arrangements which have been put in place to ensure that assessment is always valid, consistent and fair and show that these are in line with the requirements of the NSQF:

A robust technology enabled assessment methodology has been designed keeping in mind the geographical/Physical constraints and target segment which assess a trainee's knowledge and skill set through three methods:

- a. An offline Tablet based test through the use of Multiple Choice Text and Picture based questions in vernacular languages
- b. Actual demonstration on the field
- c. Viva

ASCI's assessment strategy:

- Question sets are developed as per the weightage of each NOS of the Qualification Pack.
- Assessment criteria for each Qualification Pack developed, in which each Performance criteria (PC) assigned marks based on NOS
- Question Bank is developed to assess the theoretical and practical knowledge. To ensure the quality, each trainees get different set of question
- Empanelment of subject matter expert as assessor primarily from the Industry to assess trainee specifically on practical skills as per Industry demands

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Assessments are preferably conducted on tablets or pen or papers in regional languages according to the requirement.

Please attach any documents giving further information about assessment and/or RPL. Give the titles and other relevant details of the document(s) here. Include page references showing where to find the relevant information.

ASSESSMENT EVIDENCE

Complete a grid for each component as listed in “Formal structure of the the qualification” in the Summary.

NOTE: this grid can be replaced by any part of the qualification documentation which shows the same information – ie Learning Outcomes to be assessed, assessment criteria and the means of assessment.

Title of Component: Agriculture Machinery Repair and Maintenance Service Provider

CRITERIA FOR ASSESSMENT OF TRAINEES

Job Role Agriculture Machinery Repair and Maintenance Service Provider

Qualification Pack AGR/Q1111

Sector Skill Council Agriculture Skill Council of India

Guidelines for Assessment

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC
3. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below)
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criteria
5. To pass the Qualification Pack , every trainee should score a minimum of 70% in aggregate
6. In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack

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Assessment outcomes	Assessment criteria for outcomes	Marks Allocation			
		Total Marks	Out Of	Theory	Skills Practical
1. AGR/N9910 Undertake entrepreneurship activities	PC1. conduct market survey and analyze market demand based on market trend, existing competition, current requirement, market status, etc		7	2	5
	PC2. identify possible sources of finance/loan		6	2	4
	PC3. identify potential farmers and maintain farmer database		7	2	5
	PC4. conduct target market assessment and decide positioning of products/services which is easily accessible to potential buyers		7	2	5
	PC5. identify suitable location for ease of conducting business		6	2	4
	PC6. identify and lead a team for management of business		6	2	4
	PC7. ensure compliance with all government laws, local state laws and other regulations as maybe applicable		7	2	5
	PC8. interact with successful entrepreneurs and business people in a similar field to gain expertise		7	2	5
	PC9. identify distribution and marketing channels considering the requirements and constraints associated with the same		7	2	5
	PC10. set a pricing strategy for the product/service based on the value of the product and modify pricing as and when required		7	2	5
	PC11. conduct risk assessment and identify opportunities for scaling up the business		7	2	5
	PC12. collect information related to various subsidies/funds/ schemes offered by the government, authorized state units and other financial institutions		7	2	5
	PC13. track and maintain records, and monitor them on a regular basis		6	2	4
	PC14. develop and execute promotional strategies for the business based on the budget and target segment		7	2	5

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	PC15. implement processes which help in minimizing costs and maximizing profits		6	2	4
			100	30	70
2. AGR/N1137 Prepare for setting up repair and service centre	PC1. assess requirements of different machineries by carrying out user survey on farmer's field		10	3	7
	PC2. identify appropriate tools and machineries which would be required for servicing and repair of machinery		10	3	7
	PC3. self evaluate on ability to repair and practice repair, overhauling and servicing of machinery		10	3	7
	PC4. calculate amount of space that would be required for storage of spare parts and tools and equipments		10	3	7
	PC5. decide location of centre based on the following parameters:				
	— proximity to farmer's lands				
	— space available for easy maneuvering of equipment				
	— proximity to power source so that electric power is available on a regular basis		10	3	7
	— water supply for both convenience and safety				
	— distance from industrial areas and chemical factories				
	PC6. draw up and estimate the costs expected to be incurred in setting up the business				
	— fixed cost		10	3	7
	— variable cost				
	— cost of labour				
	PC7. identify potential external sources of funds based on factors such as				
	— length of time for which funds are available		10	3	7
	— costs involved				
	PC8. approach financial institutions for financial assistance such as				
	— commercial/regional rural/co-operative banks		10	3	7
— NABARD: national bank for agriculture and rural development - which provides long, medium and short term loans					
PC9. apply for long and medium term loans to purchase land, construct factory building/shed and to purchase machineries and equipments		10	3	7	

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	PC10. apply for loans in the financial institutions and commercial banks by submitting formal application along with following documents (as applicable)				
	— loan application (duly filled)		10	3	7
	— proof of possession of land/building				
	— budgetary quotations of plant and machinery				
	— project report				
			100	30	70
3. AGR/N1138 Set up and operationalize repair and maintenance centre	PC1. select and order appropriate machinery and equipments by prior consultation		4	1	3
	PC2. select mode of purchase of tools and equipment:				
	— cash		5	2	3
	— credit				
	PC3. identify and select vendors for purchase of tools and equipment required for repair and maintenance		4	1	3
	PC4. submit necessary applications to relevant government departments and obtain utilities such as water, power, communication etc		4	1	3
	PC5. interpret and ensure adherence to state laws, and other laws pertaining to commercial establishments such as:				
	— shops and establishments act		5	2	3
	— taxation laws				
	— labour laws				
	PC6. recruit workers as per the requirement		4	1	3
	PC7. assign work to mechanics		4	1	3
	PC8. organize duties and work plan for all the workers		4	1	3
	PC9. monitor the progress of the assigned work and prepare progress report		4	1	3
	PC10. help in troubleshooting equipment during repairs		4	2	2
	PC11. resolve team conflits, if any		4	2	2
	PC12. check for mechanical defects (paying particular attention to brakes)		4	1	3
PC13. check all electrical connections		4	1	3	
PC14. check if safety guards have been replaced or repaired as per need		4	1	3	
PC15. check if machines' cutting blades have been sharpened or replaced as per need		4	1	3	
PC16. ensure regular maintenance of engines and cooling systems		4	1	3	

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	PC17. ensure proper lubrication, oil changes and filter changes		4	1	3
	PC18. ensure carry out servicing of lifting equipment		4	1	3
	PC19. ensure blockages, if any, are cleared		4	1	3
	PC20. ensure that light metal machining, welding is carried out, if required		4	1	3
	PC21. check air in tyres and perform operations accordingly		4	1	3
	PC22. check all hydraulic and transmission systems and ensure they are serviced		4	1	3
	PC23. diagnose faults in cooling and fuel systems, and ensure service and repair accordingly		5	2	3
	PC24. ensure training of team on safety standards:				
	— stopping the machine before any intervention				
	— making sure the machine has come to rest				
	— securing anything which could move or rotate				
	— using the right tools for the job		5	2	3
	— following the manufacturer's instructions/procedures				
	— replacing the guards before restarting the machine when the job is finished				
	— checking the machine before restarting				
			100	30	70
4. AGR/N1139 Ensure proper documentation and record keeping related to the farm mechanization unit/ service centre	PC1. document and maintain records of recurring costs such as:				
	— inventory cost for storage of agriculture tools, equipments and machineries				
	— fuel/lubricant cost		15	5	10
	— labour charges				
	— interest on bank loans				
	— maintenance cost of job performed by centre				
	PC2. document and maintain records of tools, equipments and machineries and their supplier/manufacturer details, manuals, annual maintenance details, etc.		15	5	10
	PC3. maintain a log book for tool, equipment or machinery use and the time that it was used for		14	4	10
	PC4. document and maintain records of periodical maintenance of each tool, equipment or machinery such as		14	4	10

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	utilization, performance, breakdown details, corrective actions, etc.				
	PC5. document and maintain database of farmers along with frequency of visit and sales details		14	4	10
	PC6. maintain a balance sheet to assess profitability of business		14	4	10
	PC7. maintain a daily cash record to keep a record of cash received from sales on a daily basis		14	4	10
			100	30	70
4. AGR/N9903 Maintain health and safety at the workplace	PC1. undertake basic safety checks before operation of all machinery and vehicles and report all potential hazards to the supervisor		6	2	4
	PC2. identify work for which protective clothing or equipment is required and perform those duties in accordance with workplace policy		7	2	5
	PC3. read and understand the hazards of use and contamination mentioned on the labels of pesticides/fumigants, etc.		7	2	5
	PC4. assess risks prior to performing manual handling jobs, and work according to currently recommended safe practices		7	2	5
	PC5. use equipment and materials safely and correctly and return the same to designated storage when not in use		7	2	5
	PC6. dispose off waste safely and correctly in a designated area		6	2	4
	PC7. recognize risks to bystanders and take action to reduce risk associated with jobs in the workplace		7	2	5
	PC8. perform work in a manner which minimizes environmental damage all procedures and ensure work instructions for controlling risks are followed closely		7	2	5
	PC9. report any accidents, incidents or problems without delay to an appropriate person and take necessary immediate action to reduce further danger		7	2	5
	PC10. follow procedures for dealing with accidents, fires and emergencies, including communicating location and directions for emergency evacuation		7	2	5
	PC11. follow emergency procedures to company standard / workplace requirements		6	2	4
	PC12. use emergency equipment in accordance with manufacturers' specifications and workplace		7	2	5

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	requirements				
	PC13. provide treatment appropriate to the patient's injuries in accordance with recognized first aid techniques		7	2	5
	PC14. recover (if practical), clean, inspect/test, refurbish, replace and store the first aid equipment as appropriate		6	2	4
	PC15. report details of first aid administered in accordance with workplace procedures.		6	2	4
			100	30	70

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SECTION 2

EVIDENCE OF LEVEL

Awarding bodies will enter a proposed NSQF level for the qualification in the Qualification File Summary. This section asks for the evidence on which that proposal is based. The evidence must refer to the level descriptors of the NSQF.

NSDA recommends an approach to working out the level of qualifications which starts with the level descriptor domains (Process, Professional knowledge, Professional skill, Core skill and Responsibility: see annex A). Two variants for providing the evidence of level are offered here: Option A and Option B in the following pages. Awarding bodies should choose the option which best suits the qualification.

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OPTION B

Title/Name of qualification/component: Agriculture Machinery Repair and Maintenance Service Provider			Level: 5
NSQF Domain	Key requirements of the job role	How the job role relates to the NSQF level descriptors	NSQF Level
Process	An Agriculture Machinery Repair and Maintenance Service Provider is responsible for ensuring timely availability of repair and maintenance services to farmers, in order to enhance agricultural mechanization.	An Agriculture Machinery Repair and Maintenance Service Provider is responsible for undertaking entrepreneurship activities, preparing for setting up of repair and service centre, setting up and operationalizing repair and maintenance centre, ensuring proper documentation and record keeping related to farm mechanization unit/service centre, maintaining health and safety at the workplace. Since the job requires well developed skill with clear choice of procedures in a familiar context, it has been placed at Level 5. Since it does not involve working in a predictable, routine situation, it cannot be placed at Level 04. For example, assessing requirements of different machineries by carrying out user survey on farmer's field, drawing up and estimate the cost, identifying and selecting vendors for purchase of tools and equipment required for repair and maintenance as expected to be incurred in setting up the business, submitting necessary applications to relevant government departments and obtaining utilities such as water, power, communication etc.	5
Professional knowledge	The user/individual is required to possess professional knowledge as is required for the job such as procedures for setting up business plans and goals, procedures for carrying out market analysis and survey, procedures for	The job holder is required to have knowledge about types of entrepreneur skills, team management practices, key leadership practices, types of agriculture machineries and their operations, types of loans, procedures for obtaining	5

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Title/Name of qualification/component: Agriculture Machinery Repair and Maintenance Service Provider			Level: 5
NSQF Domain	Key requirements of the job role	How the job role relates to the NSQF level descriptors	NSQF Level
	machine repair and maintenance, procedures to be followed for documentation and record keeping.	loans, tools and equipments used for repair, sequence to be followed while carrying out repair and maintenance activities, details to be recorded and maintained on marketing, logistics distribution and sale, methods to document and maintain records on observations related to quality, storage and operation. Since the job requires the job holder to have knowledge of facts, principles, processes and general concepts in a field of work or study, it has been placed at Level 5. As this job requires more than factual knowledge of field, it cannot be placed at Level 04. For example ,identify potential external sources of funds based on factors such as length of time for which funds are available, costs involved, apply for long and medium term loans to purchase land, construct factory building/shed and to purchase machineries and equipments, interpret and ensure adherence to state laws, and other laws pertaining to commercial establishments, diagnose faults in cooling and fuel systems, and ensure service and repair accordingly.	
Professional skill	The job holder should have professional skills including: Decision making, Planning and Organising, Customer centricity, Problem solving, Analytical Thinking, Critical thinking such as analyze critical points in day to day tasks through experience and observation and identify	The job holder needs to know and understand possible sources of finance/loan, potential customers, identify appropriate tools and machineries which would be required for servicing and repair of machinery, draw up	5

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Title/Name of qualification/component: Agriculture Machinery Repair and Maintenance Service Provider			Level: 5
NSQF Domain	Key requirements of the job role	How the job role relates to the NSQF level descriptors	NSQF Level
	control measures to solve the issue, plan and organize work, plan and allot work/responsibilities to workers, understand customer requirements and their priority and respond as per their needs.	<p>and estimate the costs expected to be incurred in setting up the business, apply for loans in the financial institutions and commercial banks by submitting formal application, identify and select vendors for purchase of tools and equipment, monitor the progress of the assigned work and prepare progress report, help in troubleshooting equipment during repairs, ensure training of team on safety standards, maintain balance sheet to assess profitability of business, maintain a log book for tool, equipment or machinery use and the time it was used for. Since the job requires a range of cognitive and practical skills require to accomplish tasks and solve problems by selecting and applying basic methods, tools, materials and information, the job holder has been placed at level 05.</p> <p>The job holder is not required to perform tasks which are repetitive in nature and have a narrow range of application. For example, decide location of centre based on set parameters, self-evaluate on ability to repair and practice repair, overhauling and servicing of machinery, apply for long and medium term loans to purchase land, construct factory building/shed and to purchase machineries and equipments, select and order appropriate machinery and equipments by prior</p>	

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Title/Name of qualification/component: Agriculture Machinery Repair and Maintenance Service Provider			Level: 5
NSQF Domain	Key requirements of the job role	How the job role relates to the NSQF level descriptors	NSQF Level
		consultation, diagnose faults in cooling and fuel systems, and ensure service and repair accordingly. Since all these involve a range of cognitive skills, it cannot be placed at Level 04.	
Core skill	The job holder must have Core Skills which will include: Writing Skills, Reading Skills, Oral and Communication (Listening and Speaking) such as fill relevant applications, write necessary communications to government officials, financial institutions and workers, read communications from various government departments, discuss task lists, schedules and activities with workers, communicate clearly with vendors, government officials, bankers, customers, consumers, etc.	The user/ individual on the job needs to know and understand how to collect information related to various subsidies/funds/ schemes offered by the government, authorized state units and other financial institutions, interact with successful entrepreneurs and business people in a similar field to gain expertise, ensure compliance with all government laws, local state laws and other regulations as maybe applicable, assign work to mechanics, organize duties and work plan for all the workers, ensure training of team on safety standards, document and maintain database of farmers along with frequency of visit and sales details, maintain a daily cash record to keep a record of cash received from sales on a daily basis. The role requires mathematical skills, understanding of social, political and some skill of collecting and organizing information, communication. Considering these outcomes the job holder has been placed at level 05. Since this requires more than basic understanding of political, social environment and more than basic arithmetic and algebraic skills, it cannot be placed at Level 04.	5
Responsibility	An Agriculture Machinery Repair and Maintenance	The job holder is responsible for undertaking	5

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Title/Name of qualification/component: Agriculture Machinery Repair and Maintenance Service Provider			Level: 5
NSQF Domain	Key requirements of the job role	How the job role relates to the NSQF level descriptors	NSQF Level
	Service Provider is responsible for ensuring timely availability of repair and maintenance services to farmers	entrepreneurship activities, assessing the requirements, deciding the location to set up workshop, arranging for necessary finances, setting up and operationalizing the centre, assigning work to workers, ensuring repair and maintenance activities are carried out in a proper manner, ensuring safe working procedures are followed while repairing and servicing machines, documenting and maintain records of operational costs, documenting and maintain records of tools, equipments and machineries, document and maintain sales and financial details. Since the job holder is responsible for his own work and learning and some responsibility for other's work and learning, it has been placed at Level 05.	

India-EU Skills Development project: Qualification File

SECTION 3 EVIDENCE OF NEED

What evidence is there that the qualification is needed?

While collecting data from the companies for the occupational map, we also took feedback from industry, training institutions which was collected with respect to roles for which qualification packs development, was to be prioritized. This was largely based on volume of people required, quantitative and qualitative shortfall which the industry feels they face. Governing council of ASCI and Occupational Standards Committee which comprises of experts & senior leaders gave final approval and endorsement for the same. According to industry interactions held, agricultural machinery market in India is estimated to grow at a CAGR of over 10 percent during the period 2013-18. Although India is the largest manufacturer of tractors in the world, accounting for one-third of the global production, farm mechanization in India is still at a nascent stage, with the average farm power availability in the country lower than in countries such as Korea, Japan and the US. Though, India is one of the top countries in agricultural production, in terms of farm mechanization, it is behind the world average. According to the Department of Agriculture, the share of agriculture workers and draught animals (farm power sources in agriculture) has come down from 63.5 per cent in 1971-72 to 13.67 per cent in 2009-10, whereas the share of tractors, power tillers, and motors has gone up from 36.51 per cent to 86.33 per cent during the same period. The increasing cost of agriculture labour and upkeep of draught animals has also partly resulted in the greater adoption of tractors for farm operations. Hence, there exists significant opportunity for skilling in the area of farm mechanization and farm mechanization equipments.

What is the estimated uptake of this qualification and what is the basis of this estimate?

In India, increased use of tractors has been associated with a marked rise in employment due to their effect on cropping intensity. Large scale adoption of high yielding varieties accompanied by higher use level of chemical fertilizers and enhanced cropping intensity has raised the demand for farm labour. Farm Mechanization is expected to help increase the overall employment of human labour by facilitating more intensive cultivation.

What steps were taken to ensure that the qualification(s) does (do) not duplicate already existing or planned qualifications in the NSQF?

NSDC list of Approved and Under-Development QPs was checked prior to commissioning the work and also our occupational map/QPs are put on ASCI & NSDC websites.

What arrangements are in place to monitor and review the qualification(s)? What data will be used and at what point will the qualification(s) be revised or updated?

- Any institution / individual is welcome to send feedback, which is recorded and considered During next review cycle.
- Communication will be sent for any feedback to all the main stakeholders/users one month prior to the review of the qualifications pack.
- A formal review is scheduled in one year time

Please attach any documents giving further information about any of the topics above. Give the titles and other relevant details of the document(s) here. Include page references showing where to find the relevant information.

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SECTION 4

EVIDENCE OF PROGRESSION

What steps have been taken in the design of this or other qualifications to ensure that there is a clear path to other qualifications in this sector?

Career path in agri sector is generally in terms of activities done & ownership of responsibility because they are primarily self-wage employment/entrepreneurship roles.

However, there are occupations in the organized segment (Agri Industries) in which career pathway has been identified as illustrated below (Annexure 1)

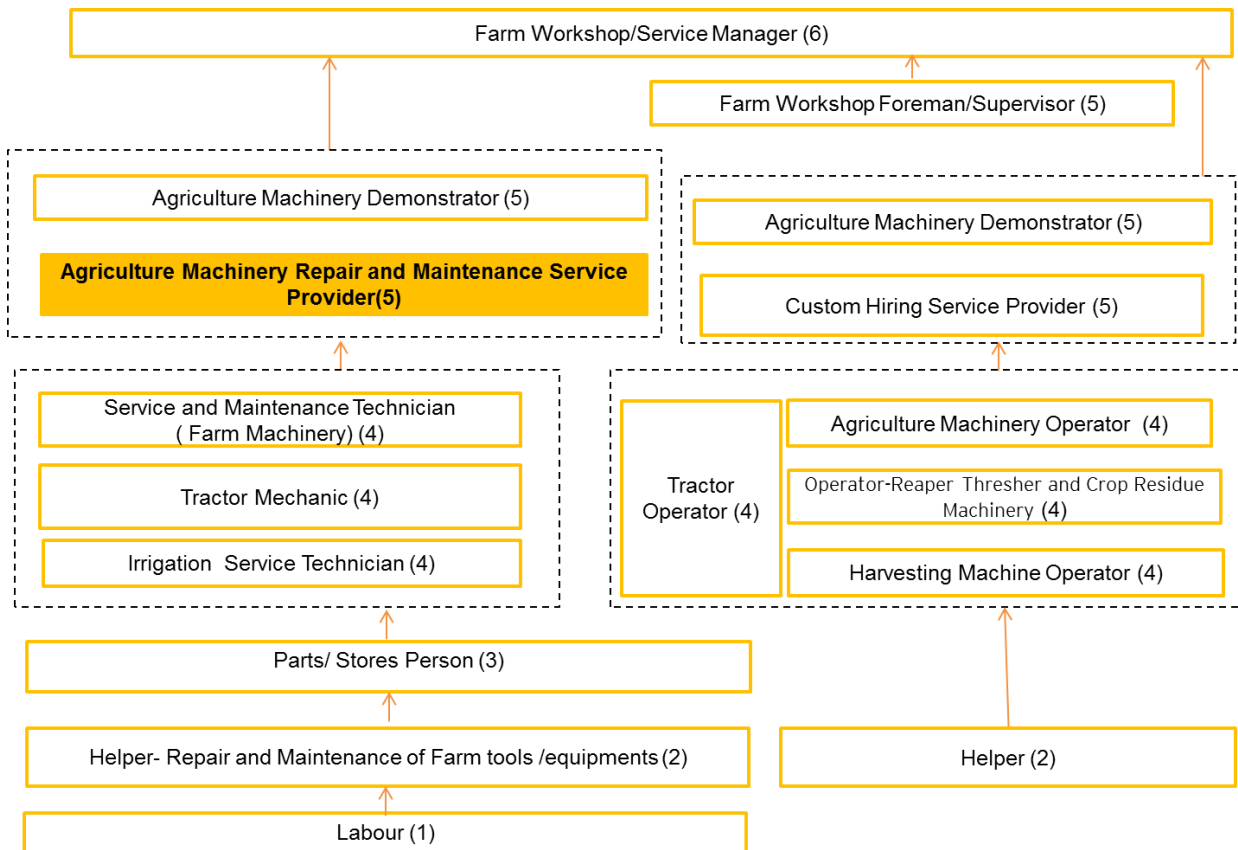
Please attach any documents giving further information about any of the topics above. Give the titles and other relevant details of the document(s) here. Include page references showing where to find the relevant information.

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Annexure 1: Career Map of Agriculture Machinery Repair and Maintenance Service Provider



Annexure 2: Qualification Pack of Agriculture Machinery Repair and Maintenance Service Provider (separate file)

Annexure 3: List of QP/NOS validating companies (separate file)

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ANNEX A

NSQF LEVEL DESCRIPTORS

LEVEL	Process required	Professional knowledge	Professional skill	Core skill	Responsibility
1	Prepares person to/carry out process that are repetitive on regular basis require no previous practice,	Familiar with common trade terminology, instructional words, meanings and understanding.	Routine and repetitive, takes safety and security measures.	Reading and writing; addition, subtraction; personal financing; familiarity with social and religious diversity, hygiene and environment.	No responsibility; always works under continuous instruction and close supervision.
2	Prepares person to/carry out processes that are repetitive, on a regular basis, with little application of understanding, more of practice.	Material, tools and applications in a limited context, understands context of work and quality.	Limited service skills used in limited context; select and apply tools; assist in professional works with no variables; differentiate good and bad quality.	Receive and transmit written and oral messages, basic arithmetic, personal financing, understanding of social, political, and religious diversity, hygiene and environment.	No responsibility; works under instruction and close supervision.
3	Person may carry out a job which may require limited range of activities routine and predictable.	Basic facts, process and principle applied in trade of employment.	Recall and demonstrate practical skill, routine and repetitive in narrow range of application	Communication written and oral, with minimum required clarity, skill of basic arithmetic and algebraic principles, personal banking, basic understanding of social and natural environment.	Under close supervision. Some responsibility for own work within defined limit.

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LEVEL	Process required	Professional knowledge	Professional skill	Core skill	Responsibility
4	Work in familiar, predictable, routine, situation of clear choice.	Factual knowledge of field of knowledge or study.	Recall and demonstrate practical skill, routine and repetitive in narrow range of application, using appropriate rule and tool, using quality concepts.	Language to communicate written or oral, with required clarity, skill to basic arithmetic and algebraic principles, basic understanding of social political and natural environment.	Responsibility for own work and learning.
5	Job that requires well developed skill, with clear choice of procedures in familiar context.	Knowledge of facts, principles, processes and general concepts, in a field of work or study.	A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying basic methods, tools, materials and information.	Desired mathematical skill; understanding of social, political; and some skill of collecting and organising information, communication.	Responsibility for own work and learning and some responsibility for others' works and learning.
6	Demands a wide range of specialised technical skill, clarity of knowledge and practice in broad range of activity involving standard and non-standard practices.	Factual and theoretical knowledge in broad contexts within a field of work or study.	A range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study.	Reasonable good in mathematical calculation, understanding of social, political and reasonably good in data collecting organising information, and logical communication.	Responsibility for own work and learning and full responsibility for other's works and learning.
7	Requires a command of wide-ranging specialised theoretical and practical skills, involving	Wide-ranging factual and theoretical knowledge in broad contexts within a field of work or	Wide range of cognitive and practical skills required to generate solutions to specific	Good logical and mathematical skill understanding of social political and natural environment and organising	Full responsibility for output of group and development.

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LEVEL	Process required	Professional knowledge	Professional skill	Core skill	Responsibility
	variable routine and non-routine contexts.	study.	problems in a field of work of study.	information, communication and presentation skill.	
8	Comprehensive, cognitive, theoretical knowledge and practical skills to develop creative solutions to abstract problems. Undertakes self-study; demonstrates intellectual independence, analytical rigour and good communication.			Exercise management and supervision in the context of work/study having unpredictable changes; responsible for the work of others.	
9	Advanced knowledge and skill. Critical understanding of the subject, demonstrating mastery and innovation, completion of substantial research and dissertation.			Responsible for decision making in complex technical activities involving unpredictable work/study situations.	
10	Highly specialised knowledge and problem solving skill to provide original contribution to knowledge through research and scholarship.			Responsible for strategic decisions in unpredictable complex situations of work/study.	

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ANNEX B

NSQF LEVEL OUTLINES

NSQF levels related to the labour market

Level 1: Work requiring knowledge, skills and aptitudes at level 1 will be routine, repetitive, and focused on limited tasks carried out under close supervision. In some sectors, people carrying out these job roles may be described as “helpers”.

Individuals in jobs which require level 1 qualifications **may** be expected to be able to read, write, add and subtract, but will not normally be required to have any previous knowledge or skills relating to the work¹.

When employed, they will be instructed in their tasks and expected to learn and use the common terminology of the trade and acquire the basic skills necessary for the work.

Job holders at this level will be expected to carry out the tasks they are given safely and securely and to use hygienic and environmentally friendly practices. This means that they will be expected to take some responsibility for their own health and safety and that of fellow workers.

In working with others, they will be expected to respect the different social and religious backgrounds of their fellow workers.

Level 2: Work requiring knowledge, skills and aptitudes at level 2 will also be routine and repetitive, and tasks will be carried out under close supervision. The individuals will not be expected to deal independently with variables which affect the carrying out of the work. People carrying out these work roles may be described as “assistants” and the range of tasks they carry out will be limited.

Individuals in jobs which require level 2 qualifications will normally be expected to be able to read and write, add and subtract. Their work may involve taking and passing on messages.

They may also be expected to have some previous experience, knowledge and skills in the occupation. When employed, they will be instructed in their tasks and expected to acquire the practical skills necessary to assist skilled workers and/or give a limited service to customers. They will learn about, and use, the materials, tools and applications required to carry out basic tasks in an occupation. They may have to select the appropriate materials, tools and/or applications to carry out tasks.

They will be expected to understand what constitutes quality in their job role and distinguish between good and bad quality in the context of the tasks they are given. Job holders at this level will be expected to carry out the tasks they are given safely and securely and to use hygienic and environmentally friendly practices. This means that they will be expected to take some responsibility for their own health and safety and that of fellow workers and, where appropriate, customers.

In working with others, they will be expected to respect the different social and religious backgrounds of their fellow workers, but their contribution to team work may be limited.

¹ In practice many workers at this level will have limited literacy and NOS and qualifications at this levels should reflect this – eg in relation to assessment.

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Level 3: Work requiring knowledge, skills and aptitudes at level 3 will be routine and predictable. Job holders will be responsible for carrying out a limited range of jobs under close supervision. Their work may require the completion of a number of related tasks. People carrying out these job roles may be described as “partly-skilled workers”.

Individuals in jobs which require level 3 qualifications will normally be expected to be able to communicate clearly in speech and writing and may be required to use arithmetic and algebraic processes. They will be expected to have previous knowledge and skills in the occupation and should know the basic facts, processes and principles applied in the trade for which they are qualified and be able to apply the basic skills of the trade to a limited range of straightforward jobs in the occupation.

They will be expected to understand what constitutes quality in their job role and more widely in the sector or sub-sector and to distinguish between good and bad quality in the context of the jobs they are given. Job holders at this level will be expected to carry out the jobs they are given safely and securely. They will work hygienically and in ways which show an understanding of environmental issues. This means that they will be expected to take responsibility for their own health and safety and that of fellow workers and, where appropriate, customers and/or clients.

In working with others, they will be expected to conduct themselves in ways which show a basic understanding of the social environment. They should be able to make a good contribution to team work.

Level 4: Work requiring knowledge, skills and aptitudes at level 4 will be carried out in familiar, predictable and routine situations. Job holders will be responsible for carrying out a range of jobs, some of which will require them to make choices about the approaches they adopt. They will be expected to learn and improve their practice on the job. People carrying out these jobs may be described as “skilled workers”.

Individuals in jobs which require level 4 qualifications should be able to communicate clearly in speech and writing and may be required to use arithmetic and algebraic processes. They will be expected to have previous knowledge and skills in the occupation in which they are employed, to appreciate the nature of the occupation and to understand and apply the rules which govern good practice. They will be able to make choices about the best way to carry out routine jobs where the choices are clear.

They will be expected to understand what constitutes quality in the occupation and will distinguish between good and bad quality in the context of their job roles. Job holders at this level will be expected to carry out their work safely and securely and take full account of the health and safety on colleagues and customers. They will work hygienically and in ways which show an understanding of environmental issues.

In working with others, they will be expected to conduct themselves in ways which show a basic understanding of the social and political environment. They should be able to guide or lead teams on work within their capability.

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Level 5: Work requiring knowledge, skills and aptitudes at level 5 will also be carried out in familiar situations, but also ones where problems may arise. Job holders will be able to make choices about the best procedures to adopt to address problems where the choices are clear.

Individuals in jobs which require level 5 qualifications will normally be responsible for the completion of their own work and expected to learn and improve their performance on the job. They will require well developed practical and cognitive skills to complete their work. They may also have some responsibility for others' work and learning. People carrying out these jobs may be described as "fully skilled workers" or "supervisors".

Individuals employed to carry out these jobs will be expected to be able to communicate clearly in speech and writing and may be required to apply mathematical processes. They should also be able to collect and organise information to communicate about the work. They will solve problems by selecting and applying methods, tools, materials and information.

They will be expected to have previous knowledge and skills in the occupation, and to know and apply facts, principles, processes and general concepts in the occupation.

They will be expected to understand what constitutes quality in the occupation and will distinguish between good and bad quality in the context of their work. They will be expected to operate hygienically and in ways which show an understanding of environmental issues. They will take account of health and safety issues as they affect the work they carry out or supervise.

In working with others, they will be expected to conduct themselves in ways which show an understanding of the social and political environment.

Level 6: Work requiring knowledge, skills and aptitudes at level 6 will require the use of both standard and non-standard practices. Job holders will carry out a broad range of work which will require a wide range of specialised technical skills backed by clear factual and theoretical knowledge.

Individuals in jobs which require level 6 qualifications will normally be responsible for the completion of their own work and expected to learn and improve their performance on the job. They are likely to have full responsibility for others' work and learning. People carrying out these jobs may be described as "master technicians" and "trainers".

Individuals employed to carry out these job roles will be expected to be able to communicate clearly in speech and writing and may be required to carry out mathematical calculations. They should also be able to collect data, organise information, and communicate logically about the work. They will solve problems by selecting and applying methods, tools, materials and information.

They will be expected to have broad factual and theoretical knowledge applying to practice within the occupation, and a range of practical and cognitive skills. They will be able to generate solutions to problems which arise in their practice.

They will be expected to understand what constitutes quality in the occupation and to distinguish between good and bad quality in the context of all aspects of their work. They will be expected to work in ways which show an understanding of environmental issues. They will take account of health and safety issues as they affect the work they carry out or manage.

In working with others, they will be expected to conduct themselves in ways which show an understanding of the social and political environment.

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Level 7: Work requiring knowledge, skills and aptitudes at level 7 will take place in contexts which combine the routine and the non-routine and are subject to variations. Job holders will carry out a broad range of work which requires wide-ranging specialised theoretical and practical skills.

Individuals in jobs which require level 7 qualifications will normally be responsible for the output and development of a work group within an organisation. People carrying out these job roles are likely to be graduates. They may be described as “managers” or “senior technicians”.

Individuals employed to carry out these job roles will be expected to be able to communicate clearly in speech and writing and are likely to be required to carry out mathematical calculations as part of their work. They should also be skilful in collecting and organising information to communicate logically about the work.

They will be expected to have wide-ranging factual and theoretical knowledge of practice within the occupation, and a wide range of specialised practical and cognitive skills. They will be able to generate solutions to problems which arise in their work.

They will be expected to understand what constitutes quality in the occupation and distinguish between good and bad quality in all aspects of their work. They will be expected to work in ways which show a good understanding of environmental issues. They will take account of health and safety issues as they affect the work they carry out and manage.

In working with others, they will be expected to conduct themselves in ways which show a good understanding of the social and political environment.

Level 8: Individuals in jobs which require level 8 qualifications will normally be responsible for managing the work of a team and developing the team. The work will involve dealing with unpredictable circumstances affecting the work.

Their work will require the use of comprehensive knowledge and understanding of the occupational field and a commitment to self-development.

They will normally need an ability to develop creative solutions to problems requiring abstract thought. They will be required to show intellectual independence and a rigorous analytical ability. They will need to be good communicators.

Level 9: Individuals in jobs which require level 9 qualifications will normally be responsible for complex decision-making in unpredictable contexts.

They will have to exercise senior responsibility in an organisation and show mastery of the issues in the occupation and the ability to innovate.

Their work will require the use of advanced knowledge and skill. They may make contributions to knowledge in their field through research.

Level 10: Job Individuals in jobs which require level 10 qualifications will normally be responsible for strategic decision-making. The context of their work will be complex and unpredictable.

They are likely to be responsible for an organisation or a significant division of an organisation. They will have to provide leadership.

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Their work will require highly specialised knowledge and problem-solving skills. They may make original contributions to knowledge in their field through research, scholarship or innovative practice.