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शुभकामना

राजर्षि जनक विश्वविद्यालय अनुसन्धान केन्द्रले शिक्षक तथा विद्यार्थीहरुको अनुसन्धानात्मक वृत्ति विकासलाई प्रोत्साहित गर्ने उद्देश्यले राजर्षि जनक विश्वविद्यालय अनुसन्धान जर्नल प्रकाशन गर्न लागेको जानकारी पाउँदा मलाई खुशी लागेको छ । यस सुखद् अवसरमा विश्वविद्यालय अनुसन्धान केन्द्रलाई धन्यवाद दिदै प्रकाशन सफलताको कामना गर्दछु ।

यतिबेला मुलुक जननिर्मित संविधान संस्थागत गरी विकास र समृद्धिको यात्रामा अग्रसर छ । चौतर्फी रुपमा मानवीय तथा पूर्वाधार विकासका कार्यक्रमहरु अघि बढाउँदै हामी समृद्ध नेपाल, सुखी नेपालीको राष्ट्रिय आकाङ्क्षा पूरा गर्ने दिशामा अभिमूख छौं । राष्ट्रको यस आकाङ्क्षा पूरा गर्न शिक्षा क्षेत्रलाई विश्व बजारमा प्रतिस्पर्धा गर्न सक्ने, प्रविधिमैत्री, रोजगारमुलक र उत्पादनमुखी बनाउनु पर्ने छ । यसै अनुरुप त्यस विश्वविद्यालयले विद्यार्थीको रुची एवं राष्ट्रिय आवश्यकता अनुसारका शैक्षिक कार्यक्रमहरु सञ्चालन गर्दै आएको छ । यस शैक्षिक सत्रदेखि बीपीएच कक्षा सञ्चालन गरेको र छिट्टै बीएएलएलबीको कक्षा समेत सञ्चालन गर्न लागेको सुखद् जानकारी पाएको छु । यसका लागि विश्वविद्यालय परिवारलाई धन्यवाद दिन चाहन्छु ।

प्रदेश नम्बर २ मा सञ्चालित यस विश्वविद्यालयको अनुसन्धान केन्द्रले आधुनिक विज्ञान, चिकित्साशास्त्र, ईञ्जिनियरिङ्, कानुनजस्ता महत्वपूर्ण विधाका साथै मैथिल कला र संस्कृतिको संरक्षण एवं सम्वर्द्धनमा पनि आफ्नो खोज तथा अनुसन्धान केन्द्रित गरेको छ भन्ने आशा गरेको छु । जर्नलले गहन अध्ययनसहित विद्यार्थी एवं अध्येताहरुका लागि पठनीय र संग्रहणीय सामग्री प्रस्तुत गरी मिथिला क्षेत्रको समस्त वाङ्मय परम्परालाई संरक्षण एवं प्रबर्द्धन गर्न महत्वपूर्ण भूमिका खेल्ने छ भन्ने मेरो विश्वास छ ।

अन्त्यमा, प्रकाशोन्मुख जर्नलको सफलता सहित राजर्षि जनक विश्वविद्यालयको उत्तरोत्तर प्रगतिका लागि हार्दिक शुभकामना व्यक्त गर्दछु ।

केपी शर्मा ओली

१५ मंसिर २०७७

सम्माननीय पूर्वप्रधानमन्त्री तथा पूर्व कुलपति श्री शेरबहादुर देउवाज्यूको सम्बोधन र निर्देशन ।

माननीय पूर्व शिक्षा मन्त्री एवं सहकुलपति तथा सभासद् मित्रहरु

ज्ञानको तपोभूमि प्राचीन विदेह राज्यको राजधानी जनक नगरी जनकपुरधाममा स्थापित यस राजर्षि जनक विश्वविद्यालयको प्रथम सभालाई सम्बोधन गर्न पाउँदा मलाई गर्वको महशुस भइरहेको छ । जुन भूमिमा राजा जनकले ज्ञानी ऋषिमूनिहरुसँग शास्त्रार्थ गरेर ज्ञानको सर्वाच्चता सिद्ध गरेका थिए आज त्यहि भूमिमा ज्ञानको दीप प्रज्वलित गर्ने उद्देश्यले उनै राजर्षि जनकको नाममा विश्वविद्यालय खोलिनु एकातिर प्राचिन सभ्यता, संस्कृति र साँस्कृतिक धरोहरप्रतिको हाम्रो अगाध आस्था र विश्वासको द्योतक हो भने अर्कातिर संघीय संरचनाअन्तर्गत प्रदेश नं. दुईमा समाहित रहेको सम्पूर्ण मिथिला प्रदेशलाई पुनः ज्ञान विज्ञानको केन्द्रको रुपमा विकास गर्ने सरकारको नीतिको पनि सम्पुष्टि हो । यस घडिमा म सर्वप्रथम यस राजर्षि जनक विश्वविद्यालयका उपकुलपति एंव सम्पूर्ण सभासद्हरुलाई विश्वविद्यालयको जिम्मेवारी कुशलतापूर्वक वहन गर्दै विश्वविद्यालयलाई एक उत्कृष्ट उच्च शैक्षिक संस्थाको रुपमा विकास गर्न सफलता मिलोस भन्ने शुभकामना दिन्छु ।

कुनै पनि मुलुकको विकासको प्रमुख आधार भनेकै दक्ष जनशक्तिको उत्पादन र तिनको समुचित उपयोग नै हो । विश्वविद्यालय दक्ष जनशक्तिको उत्पादन गर्ने प्रमुख थलो हो । अतः विश्वविद्यालयहरुले मुलुकको आवश्यकता अनुसार स्तरीय दक्ष जनशक्तिको उत्पादन गरेर सरकारको विकास प्रयासलाई मूर्त रुप प्रदान गर्न महत्वपूर्ण भूमिका खेल्नुपर्दछ । मुलुकमा विश्वविद्यालयहरुको सङ्ख्या बढदै जाँदा यसले आम सर्वसाधारणसम्म उच्च शिक्षाको पहुँच त विस्तार हुन्छ तर अर्कातिर विश्वविद्यालयहरुले एक अर्काको अनुकरण मात्र गर्ने बढ्दो प्रवृत्तिले उक्त विश्वविद्यालयको स्थापनाको औचित्यमाथि नै प्रश्न उठने गरेको पाइन्छ । अतः यस राजर्षि जनक विश्वविद्यालयले आफूलाई अन्य विश्वविद्यालयहरु भन्दा भिन्न सावित गनुपर्ने चूनौती रहेको छ । यस चूनौतीलाई सामना गर्न नवीनतम प्राविधिक ज्ञान, विश्वका नवीनतम प्रवृत्तिहरुलाई प्रवर्द्धन गर्ने खालका तथा समाज एवम् मानव जीवनका लागि उपयोगी विषयहरुमा अधिक केन्द्रित हुँदै आफ्ना पाठ्क्रमहरुको निर्माण तथा शैक्षिक कार्यक्रमहरुको सञ्चालन गर्नु आवश्यक छ । कुनै पनि शैक्षिक कार्यक्रम तबमात्र प्रभावकारी हुन्छ जब त्यो गुणस्तरीय र अनुसन्धानमा आधारित हुन्छ । विश्वविद्यालय नै ज्ञान सिर्जना गर्ने थलो हुन् । अतः यस विश्वविद्यालयले प्रारम्भदेखि नै अध्ययन र अनुसन्धान दुवै क्षैत्रमा निश्चित कार्यक्रम र योजनासहित स्तरीय उच्च शिक्षामा जोड दिनेछ भन्ने मैले विश्वास लिएको छु ।

नेपाल सरकारले पनि अहिले उच्च शिक्षाको विकासलाई विशेष प्राथमिकता दिँदै आएको छ । उच्चशिक्षाको विकासकालागि अवलम्बन गरिएका विभिन्न नीतिगत सुधार तथा विकासका कार्यक्रमहरुले पछिल्ला दिनमा उच्चशिक्षामा सुधारका संकेतहरु देखिन थालेका छन् । तर यी सुधारलाई दिगो बनाइराख्ने र विश्वविद्यायलयहरुलाई स्वनिर्भर तुल्याउने चुनौती पनि हामीसामू रहेको छ ।

विश्वविद्यालयहरु विशुद्ध प्राज्ञिक केन्द्रको रुपमा विकास हुन नसकेसम्म मुलुकले यसबाट अपेक्षित लाभ लिन सक्दैन भन्ने कुरालाई सबैपक्षले मनन गर्नु अत्यावश्यक छ । विश्वका अन्य मुलुकहरुले गरेको प्रगतिको मुख्य आधार नै उच्चस्तरीय विश्वविद्यालयहरु हुन् भन्ने हामीले विर्सनु हुँदैन ।

राजर्षि जनक विश्वविद्यालयले शिघ्र नै आफ्नो दश वर्षे मार्गचित्र तयार गरी सोहि आधारमा अगाडि बढोस् भन्ने म चाहन्छु । यो विश्वविद्यालयले पूर्विय ज्ञान र पाश्चात्य ज्ञान दुवैको समायोजन गर्दै मुलुकको आवश्यकता र अन्तर्राष्ट्रिय मागका आधारमा कार्यक्रमहरुको निर्धारण गर्नु पर्दछ ।

यस विश्वविद्यालयले यस क्षेत्रकै उच्चशिक्षाको नेतृत्व लिन सक्नुपर्दछ । यस क्षेत्रमा रहेका क्याम्पसहरुलाई यस विश्वविद्यालयको ऐनले निर्धारण गरेको प्रावधानअनुसार समन्वय र सहमतिमा क्रमशः विश्वविद्यालयले स्वामित्व ग्रहण गर्दै सफलतापुर्वक संचालनका लागि आजै देखि आवश्यक तयारी गर्नु आवश्यक छ ।यस सभामा पेश गरिएका विश्वविद्यालयका शैक्षिक कार्यक्रमहरु महत्वपूर्ण रहेका छन् । तर तिनको प्रभावकारी कार्यान्वयन निकै चूनौतीपूर्ण रहेको छ । योग्य फ्याकल्टीको अभावमा स्तरीय शिक्षा सम्भव हुँदैन । अतः विश्वविद्यालयले फ्याकल्टीको विकासमा पनि उचित ध्यान दिनु आवश्यक छ ।

अन्त्यमा म यस विश्वविद्यालयको उत्तरोत्तर प्रगतिको कामना गर्दछु ।

धन्यबाद ।

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पत्र संख्या :-
चलानी नं.:-

मिति :२०७७/०८/२१

विषय :- शुभकामना

नेपालको विशिष्ट सांस्कृतिक एवम् ऐतिहासिक महत्व बोकेको जनकपुर नगरीमा अवस्थित राजर्षी जनक विश्वविद्यालय अनुसन्धान केन्द्रले विभिन्न अनुसन्धानहरुको संग्रह "अनुसन्धान जर्नल" प्रकाशन गर्न लागेकोमा खुसी लागेको छ। नेपालका उच्च शिक्षालयहरुले उत्पादन गर्ने जनशक्ति अनुसन्धानमुखी, वैज्ञानिक सोच, चिन्तन र विश्लेषण गर्न सबल, राष्ट्रिय हितमा केन्द्रित र अन्तर्राष्ट्रिय मञ्चमा प्रतिष्पर्धी हुनु पर्दछ। वैज्ञानिक सोच र चिन्तनलाई समाजसँग जोड्न विश्वविद्यालयले उत्पादन गरेको जनशक्तिको महत्वपूर्ण भुमिका रहेको हुन्छ। यस अर्थमा राजर्षी जनक विश्वविद्यालयको अनुसन्धान केन्द्रले प्रकाशन गर्न आँटेको यो जर्नल मिथिला क्षेत्रको परम्परागत ज्ञान, सीप र अनुसन्धानको खोज तथा संरक्षणमा एउटा महत्वपूर्ण र गतिशिल दस्तावेजको रुपमा स्थापित हुन सक्नेछ भन्ने मैले आशा लिएको छु।

कुनै पनि मुलुकको जनताको सुःख र समृद्धिको आकांक्षा त्यहाँ रहेको प्राज्ञिक र वैज्ञानिक जमातको सफलतामा धेरै भर परेको हुन्छ। यसका निम्ति सरकार विश्विद्यालय निर्माण गर्ने, खोज तथा अनुसन्धान वातावरण बनाउने जस्ता समन्वयनकारी भूमिकामा रहेका हुन्छ। २०७६ सालमा जारि गरिएको सङ्घीय शिक्षा नीति अनुरुप नेपालमा पनि सङ्घीय शिक्षा नीति अनुरुप नेपालमा पनि सङघीय शिक्षा, विज्ञान तथा प्रविधि मन्त्रालय, शिक्षा हेर्ने प्रदेश मन्त्रालयहरु र स्थानीय सरकारहरु सहकार्य गर्दै देश भित्रका प्राज्ञिक र वैज्ञानिक समुदायको गुणात्मक र संख्यात्मक विकासमा निम्ति कटिवद्ध भएर लागि परेका छन्। हाम्रो समाजमा रहेको अन्धविश्वास, रुढीबाद जस्ता परम्परा, गरिबी र पछयौटेपन लगायतका समस्यालाई चिर्न मौलिक खोज र अनुसन्धान हुनु जरुरी छ। विज्ञानलाई समाजसँग र समाजको सोचालाई विज्ञानसँग जोड्नु हाम्रो विश्विद्यालय र अनुसन्धान केन्द्रहरुको प्रमुख दायित्व हो। राजर्षी जनक विश्वविद्यालयको अनुसन्धान केन्द्रले प्रकाशन गरेको यो जर्नललाई मैले त्यसैको एक कडीको रुपमा लिएको छु।

हाम्रो मुलुक भित्र हुने गरेका वैज्ञानिक खोज तथा अनुसन्धानलाई राजर्षी जनक विश्वविद्यालयको अनुसन्धान केन्द्रले प्रकाशित गरेको जर्नल मार्फत मुलुक भित्र र बाहिर रहेका वैज्ञानिक र प्राज्ञिक जमातलाई ग्राह्य भई प्रतिष्ठित जर्नलको रुपमा स्थापित हुन सकोस। जर्नलको निरन्तरता र व्यापकताका लागि प्रकाशन टोलि, विश्वविद्यालय प्रकाशन लगायत सरोकारवाला सबैमा शुभेक्षा व्यक्त गर्दछु। जर्नलको प्रथम संस्करणको पूर्ण सफलताको कामना सहित प्रकाशन टोलि, विश्विद्यालय प्रशासन लगायत सरोकारवाला सबैमा हार्दिक बधाई तथा शुभकामना व्यक्त गर्दछु।

गिरिराजमणि पोखरेल
मन्त्री
शिक्षा, विज्ञान तथा प्रविधि मन्त्रालय

लालबाबु राउत
Lalbabu Raut
मुख्यमन्त्री
Chief Minister

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प्रदेश नं. २
जनकपुरधाम, धनुषा

मिति : २०७७/७/२२

शुभकामना मन्तव्य

मिथिलाको पावन भूमि एवं प्रदेश नं. २ को अस्थायी राजधानी जनकपुरधाममा स्थापित राजर्षि जनक विश्वविद्यालय, अनुसन्धान केन्द्रले पहिलो पटक अनुसन्धानमूलक पत्रिका (रिसर्च जर्नल) प्रकाशन गर्न लागेको जानकारी पाउँदा अत्यन्तै खुसी लागेको छ । विश्वविद्यालयबाट हुन लागेको यस प्रकारको अनुसन्धानात्मक कार्यले शैक्षिक तथा प्राज्ञिक उन्नयनमा टेवा पुग्नुका साथै जर्नलमा समेटिने अनुसन्धानका विविध विषयहरू मुलुकको शैक्षिक विकासका लागि उपयोगी हुने विश्वास लिएको छु । यस अनुसन्धानमूलक पत्रिकाबाट विश्वविद्यालयको प्राज्ञिक गरिमा कायम हुन गई सम्बन्धित क्षेत्रमा विशिष्ट योगदान दिन यो पत्रिका सफल होस् भनी हार्दिक शुभकामना प्रकट गर्दछु ।

लालबाबु राउत
मुख्यमन्त्री
एवं सहकुलपति
राजर्षि जनक विश्वविद्यालय
जनकपुरधाम

माननीय पूर्वउपप्रधान तथा शिक्षामन्त्री एवं सहकुलपतिज्यू गोपालमान श्रेष्ठको राजर्षि जनक विश्वविद्यालयको प्रथम सभाको बैठकलाई सम्बोधन ।

सम्माननीय प्रधानमन्त्री एंव कुलपतिज्यू, उपकुलपतिज्यू तथा सभासदज्यूहरु,

राजर्षि जनक विश्वविद्यालयको प्रथम सभाको बैठकलाई सम्बोधन गर्न पाउँदा मलाई अत्यन्त खुसि लागेको छ ।

मुलुकको उच्चशिक्षाको विकास, प्रवर्धन र गुणस्तरीय शिक्षाद्वारा दक्ष जनशक्ति उत्पादन गर्ने मूल उदेश्यका साथ स्थापित विश्वविद्यालयहरुले एक अर्का नक्कल गर्ने नभई स्वस्थ प्रतिष्पर्धाको आधारमा आफ्ना लक्षित उदेश्य प्राप्तिका लागि प्रयत्नशील रहनुपर्दछ भन्ने मलाई लाग्दछ । यस परिपेक्ष्यमा नवगठित राजर्षि जनक विश्वविद्यालयले परम्परागत विषयहरुका शैक्षिक कार्यक्रमहरु परम्परागत शैलीमा सञ्चालन गर्नु भन्दा नवीनतम ज्ञान शिपमूलक र रोजगारमुखी शैक्षिक कार्यक्रमहरु सञ्चालन गर्नु आवश्यक देखिन्छ । खासगरी प्राविधिक र व्यावसायिक शिक्षाअर्न्तगतका विभिन्न शैक्षिक कार्यक्रमहरु सञ्चालन गर्न यस विश्वविद्यालयलाई अन्य विश्वविद्यालय भन्दा आफ्नो पृथक पहिचान बनाउन सफल हुनेछ । हुनत : यस विश्वविद्यालयको स्थापना भएको लगभग तीन–चार महीना मात्र भए पनि यस छोटो अवधिमा सभाको बैठकको आयोजना गरी विश्वविद्यालयलाई चाहिने भौतिक, प्रशासनिक, शैक्षिक, र आर्थिक व्यवस्थापनका विभिन्न पक्षसँग सम्बन्धित कार्यक्रम र महत्वपूर्ण प्रस्तावहरु आजको सभा समक्ष प्रस्तुत गरेकोमा म यस प्रयत्न विश्वविद्यालयका उपकुलपतिलगायत सम्बन्धित सबैलाई धन्यवाद दिन चाहन्छु ।

विश्वविद्यालयको ऐनमा व्यवस्था भएअनुसार त्यस क्षेत्रमा रहेका त्रि.वि. का तीन वटा क्याम्पसहरु क्रमशः रामस्वरुप रामसागर बहुमुखी क्याम्पस, जनकपुर, सूर्यनारायण सत्यनारायण मोरवैता यादव बहुमुखी क्याम्पस, सिरहा र महेन्द्र विन्देश्वरी क्याम्पस, राजविराजलाई यस विश्वविद्यालयले स्वामित्व ग्रहण गरी आफ्नो आंगिक क्याम्पसको रुपमा संचालन गर्ने कार्य त्यति सहज नभई चूनौतीपूर्ण रहेको देखिन्छ । यस कार्यलाई सम्बन्धित क्याम्पसहरु सँग समन्वय र सहमती गरी क्रमशः स्वामित्व लिँदै जाने तर्फ सकारात्मक पहल गर्नु पर्दछ ।

विश्वविद्यालय को ऐनमा नेपाल सरकारको लगानीमा विश्वविद्यालय संचालन हुने उल्लेख भएको भएतापनि विश्वविद्यालयले विस्तारै आत्म निर्भरतातर्फ उन्मुख हुन सोचका साथ अगाडि बढ्नु पर्छ ।

अन्त्यमा नवगठित राजर्षि जनक विश्वविद्यालयको उत्तरोत्तर प्रगतिको शुभकामना दिन चाहन्छु ।

धन्यवाद ।

उपकुलपति प्रा. भरत झाबाट राजर्षि जनक विश्वविद्यालय सभाको प्रथम बैठकमा प्रस्तुत स्वागत मन्तव्य ।

श्रद्धेय कुलपति सम्माननीय प्रधानमन्त्री श्री शेरबहादुर देउवाज्यू, माननीय उप–प्रधानमन्त्री तथा शिक्षामन्त्री एवं सहकुलपति श्री गोपालमान श्रेष्ठज्यू, तथा विद्वान सभासदज्यूहरु,

राजर्षि जनक विश्वविद्यालयको प्रथम सभाको बैठकमा उपस्थित कुलपतिज्यू, सहकुलपतिज्यू एवं विद्वान सभासदज्यूहरुलाई स्वागत गर्न पाउँदा म आफूलाई गौरवान्वित भएको ठान्दछु ।

मुलुकले अङ्गीकार गरेको उच्चशिक्षाको लागि वहुविश्वविद्यालयको अवधारणाअनुरुप यस विश्वविद्यालयको स्थापना भएको हो । यस विश्वविद्यालयको स्थापनाकालागि लगभग एक दशक भन्दा बढी समयावधि लागेको हो । यस समयावधिमा यस कार्यकालागि विभिन्न कार्यदलहरु गठन भएका थिए । कार्यदलले खास गरी मिथिला क्षेत्रका स्थानिय जनता, वुद्धिजीवी, नागरिक समाज, राजनीतिक दलका नेता, कार्यकर्ता, समाजसेवी, चन्दादाता, सन्त–महन्थलगायत सम्बद्ध सबैसँग अन्तरक्रिया, छलफल, विचारगोष्ठी गरी राजा जनकको प्राचीन नगरी जनकपुरधाममा विश्वविद्यालय स्थापनाका लागि सिफारिस सहितको प्रतिवेदन पेश गरिएको थियो । फलस्वरुप नेपाल सरकारबाट विश्वविद्यालय स्थापनाको कार्यलाई स्वीकृति प्रदान भई यस विश्वविद्यालयको उपकुलपतिको नाताले सम्बन्धित सबै प्रति आभार व्यक्त गर्न चाहन्छु । नवगठित यस विश्वविद्यालयले तोकिएका कार्यहरु शुरु गर्नका लागि विश्वविद्यालयको सर्वोच्च निकाय विश्वविद्यालय सभाबाट तत्सम्बन्धी मार्ग निर्देशन आवश्यकता महशुस गरी छोटो समयमा सभाको बैठक आयोजन गर्नु परेको हुँदा केहि कमी कमजोरीहरु भए विद्वान सभासदज्यूहरुबाट यस विषयमा सल्लाह र निर्देशनको अपेक्षा राखेको छु । आजको बैठकमा विश्वविद्यालय सञ्चालनका लागि नभई नहुने केही महत्वपूर्ण विषयहरुमा निर्णय र निर्देशन समेतका लागि केहि प्रस्तावहरु प्रस्तुत हुने कार्य सुचीबद्ध रहेको छ । मलाई विश्वास छ विद्वान सभासद्ज्यूहरु यसमा गहन छलफल गरी विश्वविद्यालयलाई प्रभावकारी ढंगले सञ्चालन गर्ने कार्यका लागि आफनो अमूल्य सुझावहरु दिन हुने नै छ ।

नयाँ विश्वविद्यालय भएकाले यसको भौतिक, आर्थिक, शैक्षिक, प्रशासनिक सबै संरचनाहरु नयाँ तयार गर्नु पर्ने, केहि नयाँ विषयहरुको शैक्षिक कार्यक्रमहरु तयार गरी संचालन गर्नुपर्ने विभिन्न निकायहरु गठन गरी कार्य अगाडि बढाउनु पर्ने आदि जस्ता कार्यहरु चूनौतीपूर्ण रहेपनि यसलाई अवसरको रुपमा ठानी यसलाई पूरा गर्न विश्वविद्यालयका पदाधिकारी, शिक्षक, कर्मचारी सबै दतचित भई अगाडि बढ्ने प्रतिबद्धता सहित विश्वास दिलाउन चाहन्छु ।

अन्तमा पुनः उपस्थित सबै विद्वान साथीहरुलाई हार्दिक स्वागत गर्दै आफ्नो छोटो स्वागत मन्तव्य टुग्न्याउन चाहन्छु ।

धन्यबाद ।

राजर्षि जनक विश्वविद्यालय स्थापनाको ऐतिहासिक पृष्ठभूमिदेखि वर्तमानसम्म

प्रा.भरत झा
उपकुलपति

१. विश्वविद्यालय स्थापनाको ऐतिहासिक पृष्ठभूमि

वि.सं. २०५३ सालदेखि नै मिथिला भाषा, कला, संस्कृतिसमेतको उत्थान गर्ने गरी जनकपुरमा राजर्षि जनक विश्वविद्यालय स्थापना हुनुपर्ने विषयमा छलफल तथा वहसको थालनी भएको पाइन्छ । राजर्षि जनक विश्वविद्यालय स्थापनाका लागि विगत दुई दशकभन्दा लामो पृष्ठभूमि हेर्दा राज्यका विभिन्न क्षेत्रका खास गरेर सप्तरीदेखि पर्सा जिल्लासम्मका विभिन्न वर्ग समुदायको व्यापक सहभागिता र अथक परिश्रम रहेको देखिन्छ । विभिन्न प्रसिद्ध राष्ट्रिय व्यक्तित्वहरू जस्तै सांसद, मन्त्री, राजनीतिक नेतृत्व, शिक्षाविद्, व्यापारी, बुद्धिजीवी, सन्त-महन्थ र आम जनसमुदायको उत्साहवर्धक र सराहनीय योगदानको प्रतिफलस्वरूप यो विश्वविद्यालय स्थापना भएको हो । विभिन्न समयमा भएका प्रयासले राजर्षि जनक विश्वविद्यालय २०७४।०७।१२ गते संसदबाट ऐन पारित भई विधिवत रुपमा स्थापित भएको देखिन्छ । यस सम्बन्धमा भएका केही उल्लेखनीय प्रयासहरू यसप्रकार छन्:

१. सामाजिक अगुवाहरु एवं अभिभावकहरुको वर्षौदेखिको सपना, योजना र आवश्यकतालाई रा.रा.ब. क्याम्पस जनकपुरको सिल्भर जुबली समारोहमा यस क्षेत्रमा एउटा विश्वविद्यालय स्थापना हुनुपर्ने निर्णय गरिएको ।

२. २०५३ साल भदौ ९ र १० गते धनुषा जि.वि.स. को चौथो जिल्ला परिषद्को जि.वि.स. सभापति श्री रामसरोज यादबज्यूको अध्यक्षतामा बसेको बैठकबाट जनकपुरमा 'राजर्षि जनक विश्वविद्यालय' नाउँको विश्वविद्यालय स्थापनो निर्णय गरिनु र त्यसका लागि धनुषा जिल्लाका प्रत्येक गा. वि. स. बाट रु.१,००,०००।- को दरले अनुदान सङ्कलन गरी कोष स्थापना हुनु ।

३. मिति २०५३।०८।०८ गते धनुषा जि.वि.स. को आयोजनामा तत्कालीन शिक्षा मन्त्री लगायत अन्य माननीय मन्त्रीहरू, योजना आयोगका सदस्य, त्रि. वि. का शिक्षाध्यक्ष, विश्वविद्यालय अनुदान आयोगका सदस्य–सचिव, जिल्ला विकास समितिका सभापतिज्यूहरू, नगर प्रमुखहरू, गा.वि.स. अध्यक्षहरू, रा.रा.ब. क्याम्पसका क्याम्पस प्रमुख, विशिष्ट शिक्षाविद्हरू, क्याम्पसका शिक्षक तथा कर्मचारीहरू र बुद्धिजीवीहरुको समुपस्थितिमा राजर्षि जनक विश्वविद्यालय स्थापना सम्बन्धी कार्यशाला गोष्ठी सम्पन्न भएको ।

४. मिति २०५३।१२।१८ गते जि.वि.स. को बैठकबाट विश्वविद्यालय स्थापना सम्बन्धी सम्पूर्ण कार्य गर्न गराउन माननीय सांसद श्री विमलेन्द्र निधिको अध्यक्षतामा राजर्षि जनक विश्वविद्यालय स्थापना निम्ति मूल सहयोग समिति गठन भएको थियो जसमा सप्तरीदेखि पर्सा जिल्लासम्मका सबै सांसद्हरू, सबै सभापति–उपसभापतिहरू, शिक्षाविद्हरू, क्याम्पस प्रमुख, समाजसेवी, सबै राजनीतिक दलका प्रतिनिधिहरू, विभिन्न पेसाका महानुभावहरू सहित लगभग २०५ जना संलग्न थिए । सोही मूल समितिका अध्यक्षको अध्यक्षतामा ५६ जना संलग्न भएको एउटा कार्य समिति गठन भएको थियो ।

जसको निरन्तर तथा अथक प्रयासबाट विश्वविद्यालयको स्थापना कार्यमा महŒवपूर्ण योगदान पुगेको देखिन्छ ।

५. मिति २०५५।०५।०८ गते श्री ५ को सरकार शिक्षा मन्त्रालयबाट तत्कालीन वन तथा भू–संरक्षण मन्त्री श्री महन्थ ठाकुरको संयोजकत्वमा कार्यदलको गठन भई राजर्षि जनक विश्वविद्यालयको स्थापना, प्रारूप, सञ्चालन एवं सम्बर्धन लगायतका विषयहरू बारे ठोस योजना तर्जुमा गरिएको ।

६. २०६१ सालमा डा. महेन्द्र नारायण मिश्रको अध्यक्षतामा गठन भएको कार्यदलले प्रतिवेदन र अध्यादेश तयार गरेको ।

७. २०६६ सालमा प्रा. डा. अरुण कुमार दासको संयोजकत्वमा राजर्षि जनक विश्वविद्यालय तयारी समितिको गठन भएको जसले विश्वविद्यालय स्थापनाको सम्भाव्यता र राजर्षि जनक विश्वविद्यालयको ऐन मस्यौदा तयार पारी प्रतिवेदन पेस गरेको ।

८. राजर्षि जनक विश्वविद्यालयको स्थापनासम्बन्धी प्रारम्भिक प्रस्ताव तयारी कार्यदलले क्षेत्रीय स्तरमा उच्च शिक्षाको बढ्दो माग पूर्ति गर्न, प्राविधिक विषयमा उच्च शिक्षा प्रदान गर्न, देशको विकासका निम्ति आवश्यक जनशक्ति पूर्तिमा स्थानीय र विकेन्द्रित स्तरका शिक्षण संस्थाहरूबाट सघाउ पुर्‌याउन जनकपुर, सगरमाथा र नारायणी अञ्चलहरूका जिल्लाहरूको नैसर्गिक भाषा, संस्कृति, साहित्य, कलाको सम्बर्धनमा सघाउ पुऱ्याउन तथा उच्च शिक्षा अध्ययनका लागि विदेशिने प्रवृति र बाध्यतालाई कम गर्न त्रिभुवन विश्वविद्यालयको आङ्गिक क्याम्पस रामस्वरुप रामसागर बहुमुखी क्याम्पस, जनकपुरलाई आधार क्याम्पसका रूपमा समावेश गरी जनकपुरमा तत्कालीन श्री ५ सरकारको सहयोगप्राप्त स्वायत सार्वजनिक विश्वविद्यालय (State Supported Autonomous Public University) का स्थापना गर्ने प्रस्ताव गरेको थियो ।

प्राज्ञिकता र प्रबन्धनमा प्रतिस्पर्धाका आधारमा उच्च शिक्षाको गुणस्तरमा अभिवृद्धि गर्दै देशको शैक्षिक एवम् प्राज्ञिक बातावरणलाई बढी स्वच्छ, मर्यादित र उपलब्धिमूलक तुल्याउने उद्देश्यले राजर्षि जनक विश्वविद्यालयको स्थापना गर्नुपर्ने आवश्यकता भएको ठहर उक्त समयदेखि नै गरेको देखिन्छ ।

सङ्घीय राज्यको अवधारणा अनुरूप नेपालको संविधान २०७२ ले नेपाललाई ७ प्रदेशमा विभाजन गऱ्यो । उक्त संविधान जारी हुँदाको वखतसम्म प्रदेश २ बाहेक सबै प्रदेशहरूमा विश्वविद्यालय स्थापना भइसकेका थिए । प्रदेश १ मा पूर्वाञ्चल विश्वविद्यालय, प्रदेश ३ मा त्रिभुवन विश्वविद्यालय, काठमाडौं विश्वविद्यालय, कृषि तथा वन विश्वविद्यालय, नेपाल खुल्ला विश्वविद्यालय स्थापना भएका थिए भने प्रदेश ४ मा पोखरा विश्वविद्यालय, प्रदेश ५ मा लुम्बिनी बौद्ध विश्वविद्यालय र नेपाल संस्कृत विश्वविद्यालय, प्रदेश ६ मा मध्यपश्चिमाञ्चल विश्वविद्यालय र प्रदेश ७ मा सुदूरपश्चिमाञ्चल विश्वविद्यालय स्थापना भएका थिए ।

२. राजर्षि जनक विश्वविद्यालयको स्थापना र स्वरुप

कला, विज्ञान, चिकित्साशास्त्र, कृषि, वन, पर्यटन, आयुर्वेद, कानुन, व्यवस्थापन, शिक्षा, प्राच्य दर्शन, प्राविधिक, व्यावसायिक तथा अन्य विषयमा अध्ययन, अध्यापन र अनुसन्धानद्वारा गुणात्मक र स्तरयुक्त उच्च शिक्षाको अवसर सबै क्षेत्रका जनतालाई शुलभ रूपमा उपलब्ध गराई राष्ट्रिय विकासमा दक्ष जनशक्तिको आपूर्ति गर्न र बहु विश्वविद्यालयको अवधारणा अनुरूप प्रतिस्पर्धाको आधारमा उच्च शिक्षाको गुणस्तरमा अभिवृद्धि गर्दै देशको शैक्षिक तथा प्राज्ञिक वातावरणलाई अझ बढी स्वच्छ, मर्यादित र उपलब्धिमूलक बनाउन नेपाल सरकारको लगानीमा राजर्षि जनक विश्वविद्यालयको स्थापना मिति २०७४/७/१२ गते नेपालको संविधानको धारा २९६ को उपधारा (१) बमोजिमको व्यवस्थापिका संसदले राजर्षि जनक विश्वविद्यालय ऐन २०७४ पारित गरे लगत्तै भएको थियो ।

राजर्षि जनक विश्वविद्यालय ऐन २०७४ को दफा ३ मा व्यवस्था भए अनुसार त्रिभुवन विश्वविद्यालय अन्तर्गत जनकपुर नगरपालिकामा सञ्चालित रामस्वरुप रामसागर बहुमुखी क्याम्पस, विश्वविद्यालयको आधार क्याम्पसको रुपमा रहने र सोही ऐनको दफा २० मा त्रिभुवन विश्वविद्यालयको आङ्गिक क्याम्पसको रूपमा सञ्चालित सूर्यनारायण, सत्यनारायण मो. यादव बहुमुखी क्याम्पस, सिरहा र महेन्द्र विन्देश्वरी बहुमुखी क्याम्पस, राजविराज क्याम्पसहरु राजर्षि जनक विश्वविद्यालयको सभाले निर्धारण गरेको मिति देखि सो विश्वविद्यालयको आङ्गिक क्याम्पसको रूपमा कायम रहेको मानिने व्यवस्था गरेको छ । ऐनको दफा १७ मा विश्वविद्यालयले विभिन्न विषयमा उच्च शिक्षा प्रदान गर्नका लागि आवश्यकतानुसार क्याम्पसको स्थापना तथा सञ्चालन गर्न सक्ने प्रावधान रहेको छ ।

राजर्षि जनक विश्वविद्यालय ऐन, २०७४ को परिच्छेद ३को दफा ५मा विश्वविद्यालयको संगठन अन्तरगत विश्वविद्यालय सभा, प्राज्ञिक परिषद्, कार्यकारी परिषद्, सेवा आयोग, नीति योजना तथा वित्त परिषद्, संकाय, अनुसन्धान केन्द्र, पाठ्यक्रम विकास केन्द्र, केन्द्रीय परीक्षा सञ्चालन तथा अभिलेख केन्द्र, विद्यापरिषद्, क्याम्पस र तोकिएका अन्य निकायहरूको सामूहिक रुप नै विश्वविद्यालयको स्वरुप हुने उल्लेख छ ।

विश्वविद्यालय ऐनले प्रधानमन्त्री विश्वविद्यालयको कुलपति र शिक्षा मन्त्री वा राज्यमन्त्री र सम्बन्धित प्रदेशको मुख्य मन्त्री सहकुलपति रहने व्यवस्था गरेको छ । विश्वविद्यालय सभा कुलपतिको अध्यक्षतामा गठन हुन्छ भने प्राज्ञिक परिषद्, कार्यकारी परिषद् र नीति योजना तथा वित्त परिषद् उपकुलपतिको अध्यक्षतामा गठन हुने व्यवस्था छ । कार्यकारी परिषद् ७ सदस्यीय रहने व्यवस्था गरिएको छ । संकाय र अनुसन्धान केन्द्र विश्वविद्यालयले आवश्यकताअनुसार कला, विज्ञान, चिकित्साशास्त्र, कानुन, व्यवस्थापन, शिक्षा लगायत विषयमा गठन गर्न सक्ने प्रावधान रहेको छ । प्रत्येक सङ्कायमा शैक्षिक तथा प्राज्ञिक कार्यक्रमहरू सञ्चालनका लागि विद्यापरिषद् र सो अन्तर्गत विषय समितिहरू रहने व्यवस्था राजर्षि जनक विश्वविद्यालय ऐन, २०७४ ले गरेको छ । सोही ऐनको दफा १७ मा विश्वविद्यालयले विभिन्न विषयमा उच्च शिक्षा प्रदान गर्नका लागि आवश्यकताअनुसार क्याम्पसको स्थापना तथा सञ्चालन गर्न सक्ने व्यवस्था गरेको छ ।

विश्वविद्यालय सञ्चालनका लागि सम्माननीय प्रधानमन्त्री तथा विश्वविद्यालयका कुलपति श्री शेर बहादुर देउवाज्यूबाट यस राजर्षि जनक विश्वविद्यालयका पदाधिकारीहरू मिति २०७४ पौष २६ गतेका दिन उपकुलपति पदमा प्रा. भरत झा, मिति २०७४ माघ ११ गते सेवा आयोगका अध्यक्ष पदमा प्रा. डा. शैलेन्द्र लाभ कर्ण, मिति २०७४ माघ ९ गते रजिष्ट्रार पदमा श्री महेन्द्र प्रसाद यादब, मिति २०७४ माघ ११ गते सेवा आयोगका सदस्य पदमा श्री अनिल कुमार साह नियुक्त भई कार्यरत रहनु भएको छ ।

३. आ.व. २०७४/०७५ मा विश्वविद्यालयले गरेका कार्यहरु

मिति २०७४ फाल्गुन १ गते यस विश्वविद्यालयको प्रथम सभाको बैठक राजर्षि जनक विश्वविद्यालयका कुलपति सम्माननीय प्रधानमन्त्री श्री शेरबहादुर देउवाज्यूको अध्यक्षतामा सम्पन्न भई निम्नानुसार महCवपूर्ण निर्णयहरू भएका छन्:

- कार्यकारी परिषद्को रिक्त सदस्य पदमा शिक्षकहरु मध्येबाट २ जना डा. सदन कुमार भगत र डा. अमिता कुमारीलाई मनोनयन गरिएको ।
- शिक्षक तथा कर्मचारीहरुको देहाय बमोजिम दरबन्दी स्वीकृत भएको:
  - शिक्षकतर्फ (विभिन्न विषयका लागि) : जम्मा–२०
  - कर्मचारीतर्फ : जम्मा –४५ जना
- विश्वविद्यालयको आधार क्याम्पस र आ३गिक क्याम्पसहरूमा विगतदेखि सञ्चालन भइरहेका शैक्षिक कार्यक्रमहरूका अतिरिक्त देहायका नयाँ विषय क्षेत्रमा शैक्षिक/प्राज्ञिक कार्यक्रमहरू सञ्चालन गर्ने निर्णय गरिएको छ:

  1. Post Graduate Diploma in Health & Nutrition
  2. Masters Degree in Health/Nutrition
  3. Masters of Eastern Philosophy and History of Mithila Culture
  4. Masters of Rural Development
  5. Masters of Public Health (MPH)
  6. Masters of Business Administration (MBA)
  7. Masters of Museology
  8. Bachelor of Information Technology
  9. Bachelor of Nursing (BN) Program
  10. Bachelor of Science in Medical Laboratory Technology (B.Sc.MLT)

11. Bachelor of Physiotherapy

12. Bachelor of Optometry

13. Bachelor of Ophthalmic Science and Vision Study

14. Bachelor of Public Health (BPH)

15. Bachelor of Rural Development

16. Bachelor of Business Administration (BBA)

उक्त शैक्षिक कार्यक्रम सञ्चालनार्थ पुराना पाठ्यक्रमहरूलाई परिमार्जित गर्दै राजर्षि जनक विश्वविद्यालयले आफ्नो पाठ्यक्रम र नयाँ कार्यक्रमहरू समेत सञ्चालनका लागि पाठ्यक्रमहरू तर्जुमा गर्नुपर्ने भएकोले सो सम्बन्धमा विश्वविद्यालय तत्पर रही कार्य गरी ऐनको व्यवस्था अनुसार विश्वविद्यालयका केन्द्रीय कार्यालय धनुषा जिल्लामा रहने भन्ने उल्लेख भएअनुसार धनुषा जिल्लाको जनकपुर उपमहानगरपालिका वडा नं. १४ मुजेलिया स्थित सडक डिभिजन कार्यालय र ग्रामीण विकास प्रशिक्षण केन्द्र कार्यालयहरू रहेको भवनमा विश्वविद्यालयको केन्द्रीय कार्यालय स्थायी रूपमा स्थापना गरी कार्यसञ्चालन गर्ने र हाललाई उक्त भवनहरुमा अस्थायी रूपमा केन्द्रीय कार्यालय राख्ने सम्बन्धमा सम्बन्धित निकायहरूसँग माग गर्न तत्सम्बन्धी काम कारवाहीहरू अघि बढाएको छ ।

हाल विश्वविद्यालयको केन्द्रीय कार्यालयको भवन जनकपुरमा उल्लिखित स्थानमा उपलब्ध नभएको अवस्थामा भाडाको घरमा विश्वविद्यालय सञ्चालनका लागि घरभाडाको बोलपत्र आहवान गरी केन्द्रीय कार्यालयको व्यवस्थापन गरियो र विश्वविद्यालयका कतिपय महŒवपूर्ण कार्यहरू काठमाण्डौंबाट नै सञ्चालन हुने भएको हुँदा काठमाण्डौंमा पनि विश्वविद्यालयको सम्पर्क कार्यालय राख्नका निम्ति बोलपत्र आहवान गरी तत्सम्बन्धी कार्य सम्पन्न गरियो । शिक्षा मन्त्रालयबाट प्राप्त निर्देशन अनुसार काठमाण्डौं स्थित सम्पर्क कार्यालय मिति २०७५ असार २८ गतेबाट हटाइएको छ ।

सभाले गरेको अधिकार प्रत्यायोजन अनुसार तत्काल अन्तरिम नियम बनाई वार्षिक बजेट र कार्यक्रम सञ्चालन गर्नका निम्ति कार्यकारी परिषद्बाट अन्तरिम नियम पारित गरी कार्यक्रम अगाडि बढाइएको छ ।

त्रि.वि. अन्तर्गत सञ्चालित रामस्वरुप रामसागर बहुमुखी क्याम्पस, जनकपुरलाई यस विश्वविद्यालयको आधार क्याम्पसको रुपमा र सूर्यनारायण सत्यनारायण मो. यादव बहुमुखी क्याम्पस, सिरहा तथा महेन्द्र विन्देश्वरी बहुमुखी क्याम्पस, राजविराजलाई विश्वविद्यालयको आङ्गिक क्याम्पसको रूपमा रहने गरी कायम गर्ने व्यवस्था समेत गरेको छ । यी क्याम्पसहरू हालसम्म यस विश्वविद्यालयको स्वामित्वमा आइनसकेकाले विश्वविद्यालयको दोस्रो सभा २०७५/१०/०३ गतेका दिन बसेको र सो सम्मानित सभाबाट विश्वविद्यालयको मूल उद्देश्यअनुसार शैक्षिक कार्यक्रमहरु सञ्चालन गर्न आङ्गिक क्याम्पस विश्वविद्यालय क्याम्पस, जनकपुरधाममा स्थापना गरिएको छ । उक्त क्याम्पस सञ्चालनका लागि

जनकपुरधाम उपमहानगरपालिका स्थित रामानन्द चौक वडा नं. ८ मा सुरुमा श्री जानकी मन्दिरका श्रीमान् महन्त श्री राम तपेश्वर दासज्यूद्वारा उदारतापूर्वक उपलब्ध गराइएको भवन सहितको जग्गामा शैक्षिक सत्र ०७५/०७६ का लागि एक वर्षसम्म र तत्पश्चात ५ वर्षसम्म उक्त भवन भाडामा लिइएको श्री भोला सिंह लायन्स मिथिला इङ्गलिस स्कुल परिसर, रामानन्द चौक, जनकपुरधाममा शैक्षिक सत्र ०७६/०७७ देखि सञ्चालन गरी यस विश्वविद्यालयको सभाबाट स्वीकृत १६ वटा प्राविधिक विषयका शैक्षिक कार्यक्रमहरूमध्ये आ.व. २०७५/०७६ देखि सेमेस्टर प्रणाली (Semester System) मा स्नातक तहमा ४ वटा कोर्स (B.Sc.MLT, B.Sc.CSIT, BBA, BCA) का साथै शैक्षिक सत्र ०७६/७७ देखि स्नातकोत्तर तहमा MBA र स्नातक तहमा BPH शैक्षिक कार्यक्रमहरु थप सञ्चालन गरिएका छन् ।

गुणस्तरयुक्त शिक्षामा पहुँच सुनिश्चित गरी आधुनिक ज्ञान, विज्ञान, कला एवं प्रविधिमा दक्ष प्रतिस्पर्धी जनशक्ति विकास गर्ने उद्देश्य अनरूप नेपालमा उच्च शिक्षाको समयसापेक्ष विस्तार हुँदै आएको सन्दर्भमा उच्च शिक्षा नीतिको मर्मअनुरुप विश्वविद्यालय सञ्चालन गर्ने गरी यस विश्वविद्यालयले गत आर्थिक वर्षमा निम्नानुसार कार्यक्रमहरू सञ्चालन गर्ने लक्ष्य राखी तत्सम्बन्धी तयारीका कार्यहरूसम्पन्न गरिएको छ ।

- ऐन अनुरुप तोकिएका कार्यहरू सम्पन्न गर्न नियम तथा निर्देशिकाहरूको निर्माण ।
- ऐन अनुरुरूप नियुक्ति भएका पदाधिकारी तथा प्रशासनिक कर्मचारीहरुको व्यवस्थापन ।
- विश्वविद्यालयमा अध्ययन अध्यापन हुने विभिन्न विषयमा पाठ्यक्रमहरू निर्माण ।
- विश्वविद्यालय सञ्चालनका प्रारम्भिक कार्यहरू सुचारु गर्न कार्यालयहरूको व्यवस्थापन र सचालन ।
- आ. व. २०७४/०७५ (मिति २०७४ माघदेखि २०७५ असार सम्म) को वार्षिक कार्यक्रम र बजेट स्वीकृत भई नेपाल सरकारबाट विश्वविद्यालय अनुदान आयोगमार्फत ५ करोड बजेट प्राप्त भएको ।

४. आ.व. २०७५/०७६ मा विश्वविद्यालयले सम्पन्न गरेका कार्यहरू

- राजर्षि जनक विश्वविद्यालय ऐनको परिच्छेद ७को दफा २०को उपदफा(५) र (६) बमोजिम त्रि.वि. अन्तरगत सञ्चालित रामस्वरुप रामसागर बहुमुखी क्याम्पस, जनकपुर र सूर्यनारायण सत्यनारायण मो. यादब बहुमुखी क्याम्पस, सिरहाबाट १५ जना शिक्षक तथा ७ जना कर्मचारी समायोजन भइसका छन् ।

समायोजन भएका शिक्षक र कर्मचारीको विवरण

शिक्षकहरु

क्र.सं.	नाम	कार्यरत पद	विषय	क्याम्पस
१.	श्री जुगेश्वर साह	सह प्राध्यापक	व्यवस्थापन	रा.रा.ब. क्याम्पस, जनकपुर
२.	डा. शैलेन्द्र नारायण मल्लिक	सह प्राध्यापक	इतिहास	रा.रा.ब. क्याम्पस, जनकपुर
३.	श्री अशोक कुमार झा	उप प्राध्यापक	इतिहास	रा.रा.ब. क्याम्पस, जनकपुर
४.	डा. सदन कुमार भगत	सह प्राध्यापक	व्यवस्थापन	रा.रा.ब. क्याम्पस, जनकपुर
५.	डा. बलराम झा	सह प्राध्यापक	व्यवस्थापन	रा.रा.ब. क्याम्पस, जनकपुर
६.	डा. गोपाल प्रसाद साह	उप प्राध्यापक	व्यवस्थापन	रा.रा.ब. क्याम्पस, जनकपुर
७.	श्री अनिल कुमार साह	उप प्राध्यापक	प्राणीशास्त्र	रा.रा.ब. क्याम्पस, जनकपुर
८.	डा. सरोज कुमार ठाकुर	उप प्राध्यापक	व्यवस्थापन	रा.रा.ब. क्याम्पस, जनकपुर
९.	श्री प्रदिप कुमार महतो	उप प्राध्यापक	जनसंख्या	रा.रा.ब. क्याम्पस, जनकपुर
१०	डा. श्याम किशोर महतो	सह प्राध्यापक	तथ्यांकशास्त्र	रा.रा.ब. क्याम्पस, जनकपुर
११.	डा. विद्या सागर बर्मा	सह प्राध्यापक	प्राणीशास्त्र	रा.रा.ब. क्याम्पस, जनकपुर
१२.	डा. राम कुमार साह	उप प्राध्यापक	अर्थशास्त्र	सू.स.मो.या.ब.क्या, सिराहा
१३.	डा. रत्नेश कुमार कर्ण	उप प्राध्यापक	अंग्रेजी	सू.स.मो.या.ब.क्या, सिराहा
१४	श्री विनोद कुमार कर्ण	उप प्राध्यापक	शिक्षा	सू.स.मो.या.ब.क्या, सिराहा
१५.	श्री अरुण यादब	करार (शिक्षण सहायक)	भूगोल	सू.स.मो.या.ब.क्या, सिराहा

कर्मचारीहरु

क्र.सं.	नाम	कार्यरत पद	क्याम्पस
१.	श्री भोगेन्द्र झा	उप लाइब्रेरियन	रा.रा.ब. क्याम्पस, जनकपुर
२.	श्री वशिष्ट नारायण लाल	लेखा अधिकृत	रा.रा.ब. क्याम्पस, जनकपुर
३.	श्रीमती आशा कुमारी कर्ण	शाखा अधिकृत	रा.रा.ब. क्याम्पस, जनकपुर
४.	श्री विरेन्द्र कुमार सिंह	पुस्तकालय सहायक	रा.रा.ब. क्याम्पस, जनकपुर
५.	श्री रामवृक्ष दास	सि. ल्याब ब्वाई	रा.रा.ब. क्याम्पस, जनकपुर
६.	श्री राम आश्रय कापड	कार्यालय सहायक	रा.रा.ब. क्याम्पस, जनकपुर
७.	श्री देवेन्द्र मिश्र	स. लाइब्रेरियन	सू.स.मो.या.ब.क्या, सिराहा

- राजर्षि जनक विश्वविद्यालयबाट सञ्चालन हुने शैक्षिक र प्राज्ञिक कार्यक्रमहरुका लागि आवश्यक पर्ने पाठ्यक्रम तयार गरी लागु गर्ने, शैक्षिक कार्यक्रमहरुका लागि नीति निर्धारण गर्ने जस्ता कार्यहरुका लागि नियमको व्यवस्था बमोजिम प्राज्ञिक परिषद् गठन गरिएको छ । यसै गरि संकायगत रूपमा विषय समितिहरूको गठन पनि गरिएको छ ।
- विश्वविद्यालयको कार्यकारी परिषद्बाट विज्ञान तथा प्रविधि संकायका डीनमा डा. श्याम किशोर महतो, व्यवस्थापन संकायका डीनमा श्री जुगेश्वर साह, मानविकी र सामाजिक शास्त्र संकायका डीनमा डा. शैलेन्द्र नारायण मल्लिक, पाठ्यक्रम विकास केन्द्रका निर्देशकमा डा. विद्या सागर बर्मा र प्राचार्य पदमा डा. बलराम झाको नियुक्ति भएको छ ।

- जनकपुरधाम स्थित जानकी मन्दिरका महन्त श्री रामतपेश्वर दासद्वारा आ.व. २०७५/०७६ का लागि सुरुमा निःशुल्क र पछि भाडामा उपलब्ध गराइएको घरमा विश्वविद्यालय क्याम्पस सञ्चालनमा रहेको ।
- आ.व. २०७४/०७५ को मौज्दात ३ करोड २ लाख १० हजार २ सय बाउन्न रुपियाँ उनान्नब्बे पैसा र आ.व. २०७५/०७६ को वार्षिक कार्यक्रम र बजेट स्वीकृत भई नेपाल सरकारबाट विश्वविद्यालय अनुदान आयोगमार्फत ८ करोड २२ लाख ५२ हजार बजेट प्राप्त भएको छ ।
- विश्वविद्यालय क्याम्पसमा अध्ययनरत विद्यार्थीहरूको रजिष्ट्रेसन र परीक्षा सञ्चालनका लागि विश्वविद्यालयको नियमावली सभाबाट स्वीकृत नभएसम्मकालागि पाठ्यक्रम विकास केन्द्रका निर्देशकको संयोजकत्वमा केन्द्रीय परीक्षा बोर्ड गठन गरी काम कारवाही अगाडि बढाइएको छ ।
- मिति २०७५ माघ ३ गते विश्वविद्यालयको दोस्रो सभाको बैठक राजर्षि जनक विश्वविद्यालयका सहकुलपति माननीय शिक्षा, विज्ञान तथा प्रविधि मन्त्री श्री गिरिराजमणि पोखरेलज्यूको अध्यक्षतामा सम्पन्न भएको छ ।
- दोस्रो सभाले शिक्षक तर्फ विभिन्न पदका गरी जम्मा १३ जना र कर्मचारी तर्फ विभिन्न पदका गरी जम्मा २९ जनाको दरबन्दी स्वीकृत गरेको छ ।

  उक्त दरबन्दीअनुसार विश्वविद्यालयको संगठनात्मक ढाँचा सम्बन्धित निकायबाट स्वीकृत नभएसम्मकालागि तत्काल विश्वविद्यालय क्याम्पसमा अध्यापन तथा प्रशासनिक व्यवस्थापनका लागि केही अतिआवश्यक शिक्षक तथा कर्मचारीको व्यवस्था गरी कार्य अगाडि बढाइएको छ ।

- विश्वविद्यालय सभाबाट कार्यकारी परिषद्को रिक्त सदस्य पदमा डीनहरूमध्ये २ जना विज्ञान तथा प्रविधि संकायका डीन डा. श्याम किशोर महतो तथा व्यवस्थापन संकायका डीन श्री जुगेश्वर साह र क्याम्पस प्रमुखहरू मध्ये १ जना श्री सू.स.मो. यादब बहुमुखी क्याम्पस, सिरहाका क्याम्पस प्रमुख मनोनयन हुनु भएको छ ।
- विश्वविद्यालयको आङ्गिक क्याम्पस विश्वविद्यालय क्याम्पसमा सञ्चालित B.Sc.MLT कार्यक्रमको (Nepal Health Professional Council (NHPC)) बाट निरीक्षण गराई स्वीकृति लिइएको छ ।
- विश्वविद्यालयका पहिलो र दोस्रो सभाले स्वीकृत गरेका शिक्षक तथा कर्मचारीको दरबन्दी कार्यान्वयनका लागि दोस्रो साधारण सभाबाट अर्थ मन्त्रालयको सहमति लिएर मात्र कार्यान्वयन गर्न निर्देशन भए अनुसार पूर्व शिक्षा सचिव श्री दीपेन्द्र विक्रम थापाज्यूको संयोजकत्वमा चार सदस्यीय उच्च स्तरीय संगठन तथा व्यवस्थापन सर्वेक्षण अध्ययन समिति गठन भई उक्त समितिले पेस गरेको प्रतिवेदन आवश्यक कार्यार्थ विश्वविद्यालय अनुदान आयोगमा पठाइएको छ ।

- आगामी आर्थिक वर्षदेखि थप शैक्षिक कार्यक्रमहरू सञ्चालन गर्न करिब १ बिघा जग्गा र कम्पाउन्ड भएको लगभग ३०–३२ वटा कक्षाकोठा रहेको श्री भोला सिंह लायन्स मिथिला इङ्गलिस स्कुल परिसर भाडामा लिइएको छ ।
- समायोजन भई आएका शिक्षक तथा कर्मचारीहरुका लागि विशेष निवृत्तिभरण कोष र सामाजिक सुरक्षा कोष स्थापना गरिएको छ ।

५. आ.व. २०७६/०७७ मा सम्पन्न भएका कार्यहरू

आ.व. २०७६/०७७ मा देहायबमोजिमका कार्यहरु सम्पन्न भएका छन्:

क) केन्द्रीय कार्यालय

- नीति, योजना तथा वित्त परिषद् गठन गरिएको छ ।
- राजर्षि जनक विश्वविद्यालय संगठन तथा व्यवस्थापन सर्वेक्षण प्रतिवेदन, २०७६ तयार गरिएको छ ।
- प्राज्ञिक परिषद् स्थायी समिति गठन गरिएको छ ।
- मिति २०७६ असोज ९ गते विश्वविद्यालय तेस्रो सभाको बैठक राजर्षि जनक विश्वविद्यालयका सहकुलपति माननीय शिक्षा, विज्ञान तथा प्रविधि मन्त्री श्री गिरिराजमणि पोखरेलज्यूको अध्यक्षतामा सम्पन्न भएको छ ।
- विश्वविद्यालयमा थप एक इन्जिनियरिंग सङ्काय स्थापना गरी प्रदेश नं. २ मा आङ्गिक इन्जिनियरिंग क्याम्पस स्थापनार्थ विस्तृत परियोजना प्रतिवेदन (DPR) तयार गरी क्याम्पस सञ्चालनका निमित्त आवश्यक कार्य प्रारम्भ गर्न स्वीकृति प्रदान गर्ने कार्य सम्पन्न भएको छ । विश्वविद्यालय सभाको निर्णयानुसार विश्वविद्यालय अनुदान आयोग मार्फत आवश्यक कारवाही भइरहेको छ ।
- विश्वविद्यालयका अल्पकालीन, मध्यकालीन तथा दीर्घकालीन योजना तयार गर्न डा. विद्यासागर बर्माको संयोजकत्वमा ४ सदस्यीय योजना समिति गठन भएको छ ।
- विश्वविद्यालय अनुसन्धान केन्द्रको निर्देशक पदमा प्रा. डा. राम खेलावन शाहलाई नियुक्त गरिएको छ ।
- All India Association of Vice Chancellors Academicians, New Delhi बाट पटना, विहार, भारतमा आयोजित सेमिनारमा आमन्त्रण भए बमोजिम विश्वविद्यालयका तर्फबाट उपकुलपति स्वयम्को सहभागिता रहेको छ ।
- दरबन्दी मिलान तथा निर्धारण समितिमा प्रा. विजय बहादुर सिलवाललाई अध्यक्ष र प्रा. डा. राम खेलावन शाहलाई सदस्यमा मनोनयन गरी उक्त समितिबाट प्रतिवेदन प्राप्त भएको छ ।

- जिल्ला समन्वय समिति, मलंगवा, सर्लाहीबाट फोरेस्ट्री र IT संकाय सञ्चालन गर्न अनुरोध पत्र प्राप्त भएको छ ।
- विश्वविद्यालयको आफ्नो भवन निर्माणका लागि विश्वविद्यालय स्थापनार्थ विभिन्न समयमा गठित विभिन्न समितिहरुले दिएको सुझावबमोजिम पहिचान गरिएका सार्वजनिक जग्गाहरू मध्ये विश्वविद्यालय प्रशासनबाट धनुषा स्थित फुलगामामा रहेको ११ बिगाहा क्षेत्रफल भएको जग्गा र धनुषाकै दुधमती, बेलाको १० बिगाहा क्षेत्रफल भएको जग्गा यस विश्वविद्यालयमा हस्तान्तरण हुन आवश्यक सम्पूर्ण प्रशासनिक प्रक्रियाहरू पुऱ्याई सम्बन्धित कागजातहरू केन्द्रीय गठी संस्थान, काठमाण्डौंमा बुझाइ सकिएको छ ।
- ग्रामीण विकास प्रशिक्षण केन्द्रमा रहेका विश्वविद्यालय स्थापनासँग सम्बन्धित कागजातहरू बुझिलिई व्यवस्थित रेकर्ड गरिएको छ ।
- शिक्षा, विज्ञान तथा प्रविधि मन्त्रालयबाट निर्देशन भएअनुसार क्याम्पस परिसरमा फलफूलका बिरुवा रोपिएको छ ।
- विश्वविद्यालयको आङ्गिक क्याम्पस विश्वविद्यालय क्याम्पस सञ्चालन गर्न भाडामा लिइएको श्री भोलासिंह लायन्स मिथिला इङ्गलिश स्कुल परिसर, रामानन्द चौक, जनकपुरधामलाई आवश्यक मर्मत सम्भार गरी कक्षा सञ्चालनको व्यवस्था गरिएको छ ।
- विश्वविद्यालयको तेस्रो सभाबाट राजर्षि जनक विश्वविद्यालय सेवा आयोगबाट स्थायी व्यक्ति सिफारिस भई आएमा स्वत: नरहने गरी कर्मचारीहरू मासिक ज्यालादारीमा भर्ना गर्न स्वीकृति प्रदान गर्ने निर्णय भएबमोजिम श्रीमान् रजिष्ट्रारज्यूको अध्यक्षतामा कर्मचारी पदपूर्ति समिति गठन गरी कर्मचारीहरू पदपूर्ति गरिएको छ ।
- केन्द्रीय परीक्षा सञ्चालन तथा अभिलेख केन्द्रको नियन्त्रक पदमा विश्वविद्यालय क्याम्पसका सह प्राध्यापक डा. बलराम झालाई नियुक्त गरिएको छ ।
- विश्वविद्यालयको स्थापना कालदेखि खरिद भएका भौतिक सम्पत्तिहरूको सम्परीक्षण गरी कोडिंग गर्न श्री देवेन्द्र मिश्रको संयोजकत्वमा समिति गठन गरिएको छ ।
- विश्वविद्यालयमा प्रा. डा. राम खेलावन शाहको संयोजकत्वमा EMIS Unit गठन गरिएको छ ।
- गोलबजार नगरपालिकाबाट अनुरोध भई आएअनुसार आङ्गिक कृषि क्याम्पस स्थापनाका लागि स्थलगत निरीक्षण गरी ऐन, नियमावली अनुसार प्रक्रिया बढाइएको छ ।
- विश्वव्यापी महामारी कोरोना भाइरस परीक्षणमा प्रदेश जनस्वास्थ्य प्रयोगशाला, प्रदेश २ बाट अनुरोध भई आए अनुसार विश्वविद्यालयमा सञ्चालित B.Sc.MLT कार्यक्रमको मेडिकल माइक्रोबायोलोजी विषयका शिक्षक श्री सन्तोष कुमार यादब र विश्वविद्यालयका कर्मचारी ल्याब टेक्निसियन श्री प्रशान्त कुमार झालाई COVID 19 ल्याबमा PCR परीक्षणका लागि तलबी काजमा खटाईएको छ ।

- नेपाल सरकार बेरुजु फर्छ्योट मूल्याङ्कन र अनुगमन समितिबाट धन्यवाद ज्ञापन पत्र प्राप्त भएको छ ।
- विश्वविद्यालय अनुदान आयोगबाट शिक्षक तथा कर्मचारी दरबन्दी स्वीकृति सम्बन्धमा पत्र प्राप्त भएको छ ।

ख) सेवा आयोगको कार्यालय

- रा.ज.वि. शिक्षक नियुक्तिको सिफारिस सम्बन्धी विनियम, २०७६ तयार भएको छ ।
- रा.ज.वि. कर्मचारी नियुक्ति तथा बढुवाको सिफारिस सम्बन्धी विनियम, २०७६ तयार भएको छ ।
- रा.ज.वि.सेवा आयोगको कार्यालयको कार्यविधि र निर्देशिका तयार भएको छ ।
- शैक्षिक/प्रशासनिक पदको आन्तरिक/खुल्ला प्रतियोगिताका लागि दरखास्त फाराम र अन्य फारामहरू छपाइ भएको छ ।

ग) मानविकी र सामाजिक शास्त्र संकाय, डीनको कार्यालय

- कोभिड १९ को बन्दाबन्दीको अवस्थामा यस संकाय अन्तर्गत सञ्चालित BCA शैक्षिक कार्यक्रमको बाँकी रहेको कोर्सको Online मार्फत अध्ययन–अध्यापन गराई सम्पन्न गरिएको छ ।
- मानविकी तथा सामाजिक शास्त्र संकायबाट 'पूर्वीय दर्शनमा मिथिलाको योगदान' विषयमा गोष्ठी कार्यक्रम सम्पन्न भएको छ ।

घ) व्यवस्थापन संकाय, डीनको कार्यालय

- कोभिड १९ को बन्दाबन्दीको अवस्थामा यस संकायअन्तर्गत सञ्चालित BBA शैक्षिक कार्यक्रमको बाँकी रहेको कोर्स Online मार्फत अध्ययन–अध्यापन गराई सम्पन्न गरिएको छ ।
- MBA शैक्षिक कार्यक्रम सञ्चालन गरिएको छ ।

ङ) विज्ञान तथा प्रविधि संकाय, डीनको कार्यालय

- कोभिड १९ को बन्दाबन्दीको अवस्थामा यस संकायअन्तर्गत सञ्चालित B.Sc.MLT र B.Sc.CSIT शैक्षिक कार्यक्रमको बाँकी रहेको कोर्सको Online मार्फत अध्ययन–अध्यापन गराई सम्पन्न गरिएको छ ।
- BPH शैक्षिक कार्यक्रम सञ्चालन गरिएको छ ।

च) पाठ्यक्रम विकास केन्द्र

- पाठ्यक्रम निर्माण कार्यविधि र विश्वविद्यालयको पाठ्यक्रम नीतिको मस्यौदा तयार गरिएको छ ।

छ) अनुसन्धान केन्द्र

- राजर्षि जनक विश्वविद्यालयले पहिलो अनुसन्धान जर्नल (Research Journal) प्रकाशन गरेको छ ।

ज) केन्द्रीय परीक्षा सञ्चालन तथा अभिलेख केन्द्र

- सञ्चालित शैक्षिक कार्यक्रमहरूमा विभिन्न विषयका Semester को परीक्षा तथा नतिजा प्रकाशन गरिएको छ ।

झ) विश्वविद्यालय क्याम्पस

- विश्वविद्यालय क्याम्पसमा हाल विभिन्न फ्याकल्टीमा विभिन्न तहमा १०६ जना परुष तथा ७९ जना महिला गरी जम्मा १८५ जना विद्यार्थीहरु अध्ययनरत छन् ।

विश्वविद्यालयको चौथो सभाको बैठक मिति २०७७ मंसिर २९ गते राजर्षि जनक विश्वविद्यालयका कुलपति सम्माननीय प्रधानमन्त्री श्री के. पी. शर्मा ओलीज्यूको अध्यक्षतामा सम्पन्न भएको छ ।

६. उपसंहार

राजर्षि जनक विश्वविद्यालय स्थापना भएको भर्खर तीन वर्ष हुँदै छ । परम्परागत तथा आधुनिक ज्ञान, विज्ञान, दर्शन र प्रविधिको समुन्नयन गर्ने उद्धेश्यले स्थापित यो विश्वविद्यालय आफ्ना निर्धारित उद्धेश्यहरुको प्राप्तिका निम्ति निरन्तर क्रियाशील छ । विश्वविद्यालय स्थापनाका विगत तीन वर्षमा सम्ब¢ ऐन तथा नियमले गरेका परिकल्पनाअनुसार यसका संस्थागत ढाँचाहरु निर्माण हुँदै आएका छन् । साथै यस विश्वविद्यालयका शैक्षिक, प्राज्ञिक क्रियाकलापहरु पनि निरन्तर गतिशील नै छन् । विश्वविद्यालयका विगत तीन वर्षका क्रियाकलापहरुलाई हेर्दा यसले यथासमयमा आफ्नो प्राज्ञिक औचित्य पुष्टि गर्ने आशा र अपेक्षा गर्न सकिन्छ ।

Rajarshee King Janak and Sri Janaki Temple

Prof. R.K. Shah, Ph.D.
Research Director

Rajarshee King Janak

Janak was a famous and a learned king. He was a devotee of Brahma. He gave greater importance to soul than to body. So he was called Videha. He was a great scholar of the Upanishads. His court consisted of great philosophers and learned people like Aruni, Yagyavalkya, Gargi and Maitreyi, Astavakra, Salhesh, Dinabhadri, Land of Vidyapati and Mithila cultural assets. He patronized Art, literature and civilization to a great extent. The 'Maithili' language was the official language of his kingdom.

King Janak

Rajarshee Janak was the king of an ancient Kingdom of Mithila (Videha) which was located in Mithila region, approximately in the 8th century BCE. The rulers of the Videha Kingdom were called Janaka. He also appears in epic Ramayan as father of Sita. His original name was Seeradhwaja and he had a brother named Kushadhwaja. He was regarded as an enlightened soul and ruled his Kindom with courage. Janaka was one of the most benevolent, learned and extremely popular king in Mithila Pradesh (today's Janakpur and around). King Janak is well-known for his invaluable contribution to education.

Janakpur is also the birth place of 'Sita', often revered as the divine name in Hindu religion, who was the wife of divine 'Ram'. 'Ram' was the then Prince and king of Ayodhya of India. By virtue of his extreme benevolence and superhuman type of nature, he is revered as one of the most famous gods by Hindu people. So, Janakpur is now a beloved place to all Nepalese and Hindu people as the Kingdom of Rajarshee Janak, birth place (Maitee) of divine 'Sita'. Both Janak and Sita are respected now as the national luminaries of Nepal.

King Janak was the ruler of Mithila, present day Janakpur, during the Treta Yuga. Although his real name was King Seeradhwaj Janak, he is commonly known only as king Janak. He was brave and well versed in shastras and vedas as any sage would be. He was cited as illustrious example of Karma Yoga in 'Bhagavad Gita' by Lord Krishna. He is also said to be the

one who is spriritually advanced and who was gained the state of a rishi, although he was an administrator and not a sage.

King Janak was the historic king of ancient Kingdom called Mithila which is current Janakpur of Nepal. He was the eldest son of Mithila and Nimi.

Sri Janaki Temple

Sri Janaki Temple is the biggest temple of Nepal built in Mugal style. This temple is also a supreme symbol of Rajasthani architecture. The main temple is situated in the middle part. There are two entrance gates in this temple. Images of two lions have been decorated above the north-eastern gate. These stone images are the best examples of stone sculptures. Every year, thousands of pilgrims from Nepal, India, Sri Lanka and other countries visit Sri Ram Janaki Temple to worship Lord Ram and Sita. During the festivals of Ram Nawami, Vivaha Panchami and Jhula, lots of people visit the temple for worship. This temple was built by Queen Brisha Bhanu Devi of Tickamgadh more than hundred years ago. It was believed that nine lakh rupees was spent on the construction of this temple. Hence, this temple is also called '*Naulakha*' Mandir.

Sita was also called 'Janaki', meaning the daughter of King Janak. It is said that Sita was not born to Janak. Instead, he found her in a box under the ground while ploughing the land. Sita was married to Ram, the brave Prince of Ayodhya. *The Ramayan,* a famous Hindu epic, is the story of Ram and Sita, in Hinduism, stands for pious and virtuous woman. Hindus worship Ram and Sita as their deities.

There is Laxman temple in north east and a mosque in south-west of Janaki temple. The existence of a Hindu temple and a Muslim mosque side by side exhibits a unique form of religious tolerance in Janakpur. The mosque was constructed for prayer by Muslim craftsmen during the construction of the Hindu temple. This form of religious tolerance is our national identity and character.

From Chief Editor's Desk

It is a matter of satisfaction for me to present the first issue, the first volume of 'Rajarshi Janak University Research Journal', a multidisciplinary multilingual research journal, published by RJU Research Center. It contains a wide spectrum of research articles under different categories like review article, full length research paper, popular/general article and research/ short communication. It is believed to serve concerned groups like teachers, researchers, scholars, students, policy- makers and intellectuals by providing updated information.

We are thankful to the Vice Chancellor and the Registrar, RJU for providing valuable and encouraging support throughout the process of publication. We also express our gratitude to the Deans, Directors, teachers of RJU and the authors who provided their manuscript for publication. We pay our regards to the honorable Prime Minister and the Chancellor of RJU, the Minister, Education, Science and Technology and the Deputy Chancellor, RJU, the Chief Minister, Province-2 and the Deputy Chancellor, RJU, who backed us up in this entire endeavor.

We will be thankful to receive creative criticism in order to improve the quality and the standard of this journal, which is our core commitment.

RAJARSHI JANAK UNIVERSITY RESEARCH JOURNAL

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नेपालको लोकतान्त्रिक एवं मधेश आन्दोलनमा जनकपुर : एक संक्षिप्त सर्वेक्षण

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प्रतिनिधिसभा र संविधानसभामा राजनैतिक दलहरुको उपस्थिति

ढाकाराम सापकोटा----------

CAUSES AND REMEDIAL MEASURES OF CORONA VIRUS

Bharat Jha*

Anil Kumar Sah**

Abstract

SARS-CoV-2 an outbreak beginning in December 2019 in Wuhan City of China, has spread globally, consequently declared a pandemic by the World Health Organization (WHO). The major objective of this study is to define virus, corona virus, suspect case, probable case and confirmed case. The secondary data have been taken from different articles, magazines and websites. The nature of this study is qualitative and quantitative. Since the virus can rapidly multiply in the cells of both upper and lower respiratory tract, the disease can spread from person to person through small droplets from the nose and mouth which are spread when a person with COVID-19 coughs, breathes or talks. Over 80 percent are a symptomatic or have very mild symptoms, 18 percent can develop serious illness and only around 2 percent are critically ill and are usually associated with pre-existing conditions like old age, hypertension and diabetes.

Key words: Corona, Alpha, Illness, Outbreak, SARS-COV-2

Introduction to Virus

SARS-CoV-2 is a beta-corona virus belonging to the family of Corona viruses which is so named because of the crown- like spikes on their surface. There are four main sub-groupings of corona viruses, known as alpha, beta, gamma, and delta. Some common human corona viruses are 229E and NL63 (belonging to alpha corona virus), OC43 and HKU1 (belonging to beta corona virus), and these usually cause mild to moderate upper-respiratory tract illnesses, like the common cold. This SARS-CoV-2 is a novel corona virus that causes corona virus disease 2019 (or COVID- 19). We all know that SARS-CoV-2 started an outbreak beginning in December 2019 in Wuhan City of China and has spread globally, being consequently declared a pandemic by the World Health Organization (WHO). COVID-19 is the 3rd corona virus outbreak over past 20 years after human corona viruses such as MERS-CoV (that causes Middle East Respiratory Syndrome or MERS) and SARS-CoV (that causes severe acute respiratory syndrome, or SARS)

which caused more severe respiratory illness with higher rates of morbidity and mortality (https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020).

Objectives of the Study

The first objective of this study is to define virus, corona virus, suspect case, probable case and confirmed case. The second objective of this study is to analyze mode of transmission and sign and symptoms of corona virus.

Materials and Methods

The secondary data have been taken from different articles, magazines and websites. The descriptive method has been used for this study. The nature of this study is qualitative and quantitative.

Results and Discussion

(a) Suspect Case

- A patient with acute respiratory and a history of travel to or residence in a location reporting community transmission of COVID-19 disease during the 14 days prior to symptom onset; OR
- A patient with any acute respiratory illness and having been in contact with a confirmed or probable COVID-19 case (see definition of contact) in the last 14 days prior to symptom onset; OR
- A patient with severe acute respiratory illness (fever and at least one sign/symptom of respiratory disease and requiring hospitalization) and in the absence of an alternative diagnosis that fully explains the clinical presentation.

(b) Probable Case

- A suspect case for whom testing for the COVID-19 virus is inconclusive; OR
- A suspect case for which testing could not be performed for any reason.

(c) Confirmed Case

- A person with laboratory confirmation of COVID-19 infection, irrespective of clinical signs and symptoms.

Mode of Transmission

Since the virus can rapidly multiply in the cells of both upper and lower respiratory tract, the disease can spread from person to person through small droplets from the nose and mouth which are spread when a person with COVID-19 coughs, breathes or talks. Droplets can basically travel at the speed of 1 m/s travelling,1 m distance while breathing or speaking and 2 m while coughing and up to 6m while sneezing (https://www.merriam-webster.com/dictionary/pandemic).

Sign and Symptoms

Sign and symptoms are generally mild fever, shortness of breath, cough, sudden change in taste and smell. But some cases may develop severe pneumonia. Generally, over 80 percent are symptomatic or have very mild symptom, 18 percent can develop serious illness and Only around 2 percent are critically ill and are usually associated with pre-existing conditions like old age , hypertension and diabetes. Although majority of cases are asymptomatic, a recent study has shown that the viral load that was detected in the asymptomatic patients are similar to that in the symptomatic patients, which may suggest the transmission potentials of asymptomatic or minimally symptomatic patients. Therefore, identifying asymptomatic cases can be equally important (WHO, 2020).

Laboratory Diagnosis

It is now clear that the clinical laboratory plays a critical role in this global health crisis by contributing to patient screening, diagnosis, monitoring/treatment, as well as epidemiologic surveillance of Covid-19. Laboratory investigations in COVID-19 include diagnostic tests like molecular testing, serological testing and test related to biochemical monitoring.

Highlights

- Nucleic Acid Amplification Tests (NAAT's) are currently the gold standard for diagnosis of suspected cases of COVID-19.

- The most common type of NAAT that are being used is real time reverse-transcription polymerase chain reaction (rRT-PCR), which is used by both the CDC-developed assay and the WHO-endorsed assays.
- Crucial aspect to maintain clinical sensitivity of nucleic acid testing are inadequate procedures for collection, handling, transport and storage of the specimens, the selection of appropriate timing for the specimen collection.
- It is very important that the sample is collected within the diagnostic testing window. False negative results may be caused by low viral loads in the early and late stages of infection.
- The peak of viral shedding generally appears in 3-5 days after infection. The median period between symptom onset and a negative PCR result has been reported as 20 days which range from 17-24 days. By the end of 3rd week, the viral shedding decreases drastically and may remain undetected afterward.
- While the serology testing for COVID-19 is the analysis of plasma or whole blood for the detection of antibodies, especially immunoglobulin G (IgG), immunoglobulin M (IgM), and immunoglobulin A (IgA), that are specific for SARS-COV-2 antigens, including the spike glycoprotein and nucleocapsid protein.

Laboratory Monitoring of Severe COVID-19 Disease

- Various routine biochemical, hematological, and immunochemical laboratory testing is essential in assessing disease severity, selecting appropriate therapeutic options, and monitoring treatment response.
- There are now several studies that have been published showing various changes in biochemical markers due to viral tissue damage or immunological reaction against the

viral infection or lack of oxygen saturation in the severe respiratory distress syndrome associated with viral infection.

- Severe COVID-19 is associated with increase in inflammatory biomarkers and it is characterized by a massive pro-inflammatory response or what we called as “cytokine storm” that is believed linked with multiple organ damage and failure.
- Cytokine measurement is not common in clinical laboratory practice; therefore surrogate biochemical markers of inflammation including C-reactive protein (CRP), ferritin and ESR have all been implicated in severe COVID-19 and can be useful in assessing disease severity.
- Accumulating clinical data suggest prominent cardiovascular dysfunction in severe COVID-19 patients.
- Significant number of critical patients is presented with acute myocardial injury, as determined by increased cardiac troponin I levels and are associated with increase mortality. Other cardiac biomarkers like NT-proBNP, myoglobiln and CK-MB are also elevated.
- The possible mechanism of such cardiovascular complications may be due to viral myocarditis or cytokine-driven myocardial damage. Several large-scale hospitals studies have reported elevation in liver enzymes such as AST, ALT and GGT.
- Also, previous data from the SARS epidemic in 2002 reported that over 6 percent of patients developed acute renal impairment, and the mortality of SARS patient with acute kidney injury was above 90 percent.
- However, current data suggest that the prevalence of AKI in COVID-19 comparatively low as indicated by elevated level of creatinine and blood urea nitrogen (https://en.wikipedia.org/wiki/Timeline_of_the_2019%E2%80%9320_coronavirus_pandemic_in_November_2019_%E2%80%93_January_2020).

Table.1: Specimen Storage and Transport

Specimen Type	Collection Materials	Storage Temperature until Testing in-Country Laboratory	Recommended Temperature for Shipment according to Expected Shipment Time
Nasopharyngeal and oropharyngeal swab	Dacron or polyester flocked swabs	2-8^{0}C	2-8^{0}C if ≤ 5 days –70 °C (dry ice) if > 5 days
Bronchoalveolar lavage	Sterile container *	2-8 °C	2-8 °C if ≤ 2 days –70 °C (dry ice) if > 2 days
(Endo)tracheal aspirate, nasopharyngeal or nasal wash/aspirate	Sterile container *	2-8 °C	2-8 °C if ≤ 2 days –70 °C (dry ice) if > 2 days
Sputum	Sterile container	2-8 °C	2-8 °C if ≤ 2 days –70 °C (dry ice) if > 2 days
Tissue from biopsy or autopsy including from lung	Sterile container with saline or VTM	2-8 °C	2-8 °C if ≤ 24 hours –70°C(dry ice) if>24 hours
Serum	Serum separator tubes (adults: collect 3-5 ml whole blood)	2-8 °C	2-8 °C if ≤ 5 days –70 °C (dry ice) if > 5 days
Whole blood	Collection tube	2-8 °C	2-8 °C if ≤ 5 days –70 °C (dry ice) if > 5 days
Stool	Stool container	2-8 °C	2-8 °C if ≤ 5 days –70 °C (dry ice) if > 5 days
Urine	Urine collection container	2-8 °C	2-8 °C if ≤ 5 days –70 °C (dry ice) if > 5 days

* For transport of samples for viral detection, use viral transport medium (VTM) containing antifungal and antibiotic supplements. Avoid repeated freezing and thawing of specimens. If VTM is not available, sterile saline may be used in place of VTM (in such case, duration of sample storage at 2-8 °C may be different from what is indicated above).

1. Aside from specific collection materials indicated in the table, also ensure other materials and equipment are available: e.g. transport containers and specimen collection bags and packaging, coolers and cold packs or dry ice, sterile blood-drawing equipment (e.g. needles, syringes and tubes), labels and permanent markers, PPE, materials for decontamination of surfaces, etc (https://www.who.int/dg/speeches/detail/who-director-generals-remarks-at-the-media-briefing-on-2019-ncov-on-11-february-2020).

Table.2: Recommended Test List

Laboratory Test	Main Laboratory Abnormalities Observed in Adult Patients with Unfavorable COVID-19 Progression (Modified from 1-17)	Potential Clinical and Biological Significance (Modified from 3)
Complete Blood Count	Increased white blood cell Increase neutrophil count Decreased lymphocyte count Decreased platelet count	Bacterial (super) infection Bacterial (super) infection Decreased immunological response to the virus Consumption (disseminated) coagulopathy
Albumin	Decreased	Impairment of liver function
Lactate dehydrogenase	Increased	Pulmonary injury and/or widespread organ damage
Alanine Aminotransferase	Increased	Liver injury and/or widespread organ damage
Aspartate aminotransferase	Increased	Liver injury and/or widespread organ damage
Total Bilirubin	Increased	Liver Injury
Creatinine	Increased	Kidney Injury
Cardiac troponin	Increased	Cardiac Injury
D-Dimer	Increased	Activation of blood coagulation and/or disseminated coagulopathy
Prothrombin Time	Increased	Activation of blood coagulation and/or disseminated coagulopathy
Procalcitonin	Increased	Bacterial (Super) infection
C-reactive protein	Increased	Severe viral infection /viremia /viral sepsis
Ferritin	Increased	Severe Inflammation
Cytokines (IL-6)	Increased	Cytokine storm syndrome

Conclusion

The corona virus disease continues to spread across the world following a trajectory that is difficult to predict. The health, humanitarian and socio-economic policies adopted by countries will determine the speed and strength of the recovery. There must be a global human-centered response which is grounded in solidarity. A coordinated global effort is required to support

countries that currently do not have sufficient fiscal space to finance social policy, in particular universal social protection systems. Debt sustainability should be prioritized in this endeavor. Without long-term structural changes, the deep-rooted inequalities exposed by the crisis will merely intensify. For tackling the immediate effects of the crisis, the international community now has a unique opportunity to adopt policies aimed at achieving social justice and human-centered future of world.

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EPIDEMIOLOGY OF SEVERE ACUTE RESPIRATORY SYNDROME VIRUS-2 (SARS-COV-2) CAUSING CORONAVIRUS DISEASE 2019 (COVID-19) PANDEMIC

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Abstract

Severe Acute Respiratory Syndrome (SARS-CoV-2) causing Corona-virus Disease2019 (COVID-19) Pandemic started in 2019 December from Wuhan, Hubei, China, and still ongoing till October 2020. The general objective of this study is to analyze the effects of virus infection and the epidemiology of SARS-CoV-2. More than 80 percent of patients have mild symptoms and self-recover but transmit to other healthy individuals in contact. In about 14 percent of cases, the virus causes severe disease, including pneumonia and shortness of breath. Secondary data have been used for this study from books, journals, research articles, and WHO websites. Strict attention to good isolation, infection control practices (IPCs), and testing of symptomatic cases and exposed persons (contacts), isolation of confirmed cases, and quarantine of healthy people reduces the human-to-human spread of the virus.

Key words: Coronavirus, COVID-19, pandemic, *infection control practices, SARS-CoV-2,* diarrheal disease

Introduction

The first corona-virus isolations were infectious bronchitis virus in the 1930s and mouse hepatitis virus and transmissible gastroenteritis virus in pigs during the 1940s (Beaudette & Hudson, 1937). The features of these viruses were first noted in electron microscopic studies of

infectious bronchitis virus and later in electron microscopic studies of several isolates from humans (McIntosh, 1974). These features were considered crown-like in appearance; hence, the name coronavirus. These viruses are now designated as members of the coronavirus genus in the family Coronaviridae. The first member of the other genus of the family Coronaviridae, torovirus, was isolated from a horse with diarrheal disease in 1972 and named Berne virus (Koopmans & Horzinek, 2005). Coronaviruses, however, are associated with economically important diseases in cattle, poultry, and pigs and serious disease in cats. They are also recognized as second only to rhinoviruses as a cause of the common cold in humans. In 2003, an outbreak of a new disease, severe acute respiratory syndrome (SARS), was shown to be caused by a novel coronavirus, SARS-CoV; this outbreak generated renewed interest in efforts to understand coronaviruses, the diseases they cause, and treatment and prevention strategies (Drosten *et al.*, 2003). In 2012 another new strain of coronavirus MERS CoV outbreak in the Middle East was found. In December 2019, a new strain evolved named SARS CoV-2 causing a pandemic in the human subject and continuing in 2020. Since the SARS outbreak in 2002, many new coronaviruses have been identified, including ones from bats and humans and additional coronaviruses are likely to be identified in the future (Bushnell & Brandly, 1933). This paper focuses on the effects of virus infection in human and livelihood, epidemiology of SARS- CoV-2, clades of SARS- CoV-2 in 2019 and 2020.

Objective of the Study

The key objective of this study is to analyze the Corona-virus 19 at global level and especially for Nepal.

Significance of the Study

Several wild animals have been tested for evidence of SARS-like CoV infections, only one, the horseshoe bat, has had a pattern of infection consistent with its being a natural reservoir for SARS-CoV infection. Patients who failed to resolve their illness often had a progressive respiratory failure that led to death within weeks, but sometimes months, after illness onset. Severe illness has been associated with older age, presence of underlying chronic illness, and some laboratory test results, including higher values for liver enzymes, lower levels of

lymphocytes and platelet counts, and higher titers of the virus, or viral RNA, in clinical specimens (Booth *et al.*, 2003).

Materials and Methods

Secondary data have been used for this study from books, journals, research articles, and various websites. Descriptive and analytical methods have been adopted for this study.

SARS CoV-2 in December 2019 (WHO, 2020)

- More than 80 percent of patients have mild disease and will recover. In about 14 percent of cases, the virus causes severe disease, including pneumonia and shortness of breath.
- And about 5 percent of patients have critical diseases including respiratory failure, septic shock, and multi-organ failure.
- In 2 percent of reported cases, the virus is fatal, and the risk of death increases in older age.
- Relatively few cases among children. More research is needed to understand why.

Nomenclature of virus and disease

The name of the disease caused by a novel coronavirus (New Coronavirus Pneumonia -NCP and Wuhan pneumonia as initial name) is finalized with consensus proposed by WHO as coronavirus disease 2019 (COVID-19) on February 11, 2020 (WHO, 2020). The name of this virus is still to decide, at present, there are three names including two proposed names and one initial name:

- 12019-nCoV (Initial name)
- COVID-19 Virus (proposed by WHO)
- SARS-CoV-2 (proposed by CSG-Corona Study Group) and then approved by WHO

Effects of virus infection on host cells

Coronavirus infection induces a variety of cytopathic effects (CPEs), depending on the virus strains and host cells. Some coronaviruses (e.g., MHV, BCoV, IBV, or SARS-CoV) cause cell fusion. The mechanism of CPE may be attributed to a variety of causes, including inhibition of

translation of cellular proteins and transcription of a subset of cellular genes. MHV also induces apoptosis, which is mediated through the E protein (An, Chen, Yu and Leibowitz, 1999). Also, many SARS-CoV proteins can affect cellular signaling pathways, resulting in the derangement of cellular functions and enhanced cytokine and chemokine expression; for example, 7a and N proteins of SARS-CoV and nsp1 of MHV can block cell cycle progression and inhibit cellular protein synthesis. The 3a protein of SARS-CoV has been shown to activate the expression of the fibrinogen gene, a property relevant to the capability of SARS-CoV to induce fibrosis. Persistent coronavirus infection readily occurs in tissue culture cells. Although most coronavirus infections in animals are acute and self-limited, persistent coronavirus infection in vivo can occur in immunocompromised hosts, such as nude or newborn mice (Carstens, 2010).

Features of SARS CoV-2

2019-nCoV is the 7th member of family coronaviruses that infect humans, others being SARS-CoV, MERS-CoV, and four viruses 229E, OC43, NL63, and HKU1 common cold symptoms. The cell entry receptor for this virus is ACE2 where spike protein of the virus surface gets attached and gets fused with the cell membrane similar to SARS-CoV. The genome of this virus strains showed 96 percent identical to that of bat coronavirus in one study and another study showed to be 86.9 percent identical to the bat SARS-like coronavirus but these 2019-nCoV strains are well conserved within themselves. Epidemic doubled in size every 7.4 days and the basic reproductive number was estimated to be 2.2 and hence human to human transmission has occurred among close contacts. Epidemics are already growing exponentially in multiple major cities of China with a lag time behind the Wuhan outbreak of about 1 to 2 weeks.

Epidemiology of Severe Acute Respiratory Syndrome

Multiple serologic studies demonstrated that SARS-CoV had not circulated to any significant extent in humans before the outbreak in 2002 and 2003 (Chan *et al*., 2004). Although animals were the source of SARS, its global spread occurred by human-to-human transmission. Transmission appeared to occur through close contact (i.e., direct person-to-person contact,

fomites, or infectious droplets and probable aerosols in some instances) (Dowell *et al.*, 2004). Because transmission usually only occurred after the onset of illness and most efficiently after the patient was sufficiently ill to be hospitalized, most spreads occurred in households and health care settings but infrequently in other settings (Peiris *et al.*, 2005). The other cases occurred in southern China and resulted from exposure in the community, presumably to SARS-CoV-infected animals from wild animal markets. Sequences from several distinct SARS-like coronaviruses have been amplified from horseshoe bats from Hong Kong and several provinces in China, and 30 percent to 85 percent of this species of bats had antibodies to a SARS-like coronavirus. N gene NT sequences for three bat SARS-like coronaviruses had 3 percent to 6 percent differences and a similar level of difference between each of these viruses and SARS-CoV (Estola, 1970).

Human SARS-CoV Infections

In contrast to the mild illness usually associated with human coronavirus infections, SARS-CoV infection of humans nearly always resulted in a serious lower respiratory tract illness that required hospitalization, often in an intensive care unit (up to 20% of infections) (Peiris, Guan, & Yuen, 2004). The overall fatality rate was ~10 percent but approached 50 percent in elderly patients and those with underlying illness. Although not diagnostic, the clinical presentation of SARS was often different from that seen with other viral respiratory infections (Booth *et al.*, 2003). The illness usually had onset at 4 to 6 days, sometimes as short as 2 days and rarely longer than 10 days after exposure, for SARS CoV-2 the onset of the disease is between 5-7 days, remains for 21 days and thereafter recovers and was characterized by systemic symptoms such as fever, malaise, and myalgias, but usually not upper respiratory tract symptoms such as rhinorrhea, sore throat, and nasal congestion. However, a minority of patients, less than 25 percent, did develop upper respiratory tract symptoms. The first respiratory tract symptoms (usually a nonproductive cough and shortness of breath) developed several days after the onset of systemic symptoms. Some patients, <25 percent initially but up to 70 percent during the illness, developed diarrhea. Most patients developed abnormal liver function tests (70%-90%) and lymphopenia (70%-95%), with a substantial drop in both CD4 and CD8 T cells.

The asymptomatic or mild illness was uncommon, as illustrated by studies of exposed health care workers in which less than 1 percent of those without a SARS-like illness had serologic evidence of infection. Children had a less severe illness than adults, and like other infections, the expected signs and symptoms were sometimes obscured or not present in elderly patients or those with underlying chronic illnesses. Most survivors of SARS-CoV infection achieve full recovery, although pulmonary function abnormalities may take months to subside. Some, however, had persistent decreases in pulmonary function (Fan, Zhao, Shi & Zhou, 2019).

A striking feature of SARS-CoV, when compared to the other coronaviruses, is the large number of genes encoding putative nonstructural proteins interspersed with structural genes at the 3 ends of the genome. The function of these proteins is unknown, but they may contribute to severe disease in infected patients. The genetic disruption of these genes does not affect the ability of the virus to grow in tissue culture cells, showing that they are nonessential for viral replication. A similar age dependence was observed during the 2003 epidemic, with more severe disease noted in those older than 60 years of age (Donnelly *et al*., 2003).

Diagnostic Approach

Most human coronavirus infections are not diagnosed because the upper respiratory disease is relatively mild and self-limited, and no drugs are available to provide more than symptomatic relief. In humans, as with other respiratory virus infections, a coronavirus infection cannot be diagnosed simply by clinical signs or symptoms but requires a laboratory-based diagnosis. Laboratory diagnostics are also required to diagnose infections in animals (Chu *et al.*, 2020). Most efforts to diagnose human coronavirus infections have been for clinical or epidemiologic studies of acute respiratory tract infections, and testing is usually done in research laboratories. Coronavirus infections in animals and humans were initially detected by isolation, electron microscopy, and serologic studies and later by antigen detection and PCR-based assays. To date, serologic assays applied to acute and convalescent-phase serum specimens have been the most sensitive way to detect human coronavirus infection. The ability to detect infection by reverse transcriptase-polymerase chain reaction (RT-PCR) as compared to serologic assays is yet to be determined but will depend, in part, on the timing and quality of specimens available for testing and the type of assays used. Similar to other respiratory viruses, the human respiratory coronaviruses are most often detected in respiratory secretions early in the illness. Several days

after the onset of illness, the titer of the virus begins to decrease. SARS presents a different diagnostic situation (Ertuğ KIYASOĞLU, 2019).

For SARS, often a combination of serologic and RT-PCR assays was used to detect and confirm infection. Whereas RT-PCR provided the best way to make an early diagnosis, serologic assays usually provided the best way to confirm or rule out infection. Serum proved to be the best specimen to detect viral RNA during the first week of illness, while stool and respiratory specimens were the best specimens during the second week of illness (Gutiérrez-ocampo *et al.*, 2020). In one study, less than 50 percent of respiratory and stool specimens were positive the first week but increased to 60 percent to 70 percent during the second and third weeks of illness. With very sensitive PCR assays (e.g., a nested or real-time PCR assay) and RNA extraction procedures that increased the amount of specimen used in the assay, the positivity rate in respiratory specimens increased from less than 40 percent to more than 80 percent during the second and third days of illness. SARS antibodies have been detected as early as 6 days after onset of illness, often by 14 days into the illness, but sometimes not until 4 weeks after onset of illness. Because serum specimens from persons not infected with SARS during 2002, 2003 outbreak have rarely tested positive for SARS-CoV antibodies, a single serum specimen positive for SARS-CoV antibodies was usually considered diagnostic for infection, and a negative test on a serum specimen collected late in the illness (28 days or later after onset of illness) could be used to rule out SARS-CoV infection. Because the diagnosis of a re-emergence of SARS-CoV will have substantial public health, social, and economic impact, a diagnosis of SARS should be confirmed by another laboratory experienced in SARS-CoV diagnostics (WHO, 2020).

Treatment

At present, there is no antiviral drug for human coronavirus infections. The molecular biology of coronavirus infection, however, suggests several potential targets for antiviral drugs, including viral RNA-dependent RNA polymerase, virus-encoded proteases, the process for coronavirus budding or release from infected cells, cellular receptors for virus binding and infection, and the viral spike glycoprotein that mediates binding to and entry into the cell. Early during the outbreak, ribavirin, high-dose steroids, and various mechanical ventilation and oxygenation regimens became the standard of care for treating SARS patients. Drugs that have been shown to have in vitro anti-SARS-CoV activity include protease inhibitors that are licensed for the

treatment of HIV, such as lopinavir, ritonavir, and nelfinavir; monoclonal antibodies that inhibit SARS-CoV binding to cells; peptides from the heptad repeat regions of the virus that inhibit fusion; and small interfering RNAs. If SARS re-emerges, in vitro and animal model studies of antiviral drugs and data from studies of acute respiratory distress syndrome from other causes can be used to guide treatment.

Prevention and Control

Granted vaccines donated by India are available to prevent human coronavirus infection, but vaccines against common veterinary coronaviruses, such as IBV and CCoV, are routinely used to prevent serious disease in young animals, and efforts are ongoing to improve these vaccines. Besides, a variety of SARS vaccines, including inactivated whole virus, expressed proteins, and live virus vectored vaccines, have been developed and shown to induce neutralizing antibodies in vitro and to decrease virus replication and inflammation in animal models. Small-scale safety and efficacy trials have begun for a DNA vaccine and a whole virus inactivated vaccine. The biology of coronavirus infections suggests challenges in developing effective coronavirus vaccines. Because natural infection does not prevent either reinfection or disease, an effective vaccine would appear to need to improve on immunity induced by natural infection.

Conclusion

Despite a lack of vaccines and antiviral drugs, there are ways to prevent coronavirus infections (i.e., good infection control practices and respiratory etiquette). This was demonstrated unequivocally during the SARS-CoV outbreak in 2003 and this current outbreak of 2019 and 2020. Strict attention to confirmed cases isolation, infection control practices, and management of exposed persons (contacts), stopped the human-to-human spread of the virus from the start of its global spread. The success in stopping the spread of SARS can be attributed in part to its pattern of transmission and in part to the ability of the global public health measures, health care system functioning, solidarity among scientific communities, and the governments and public to work together effectively to control spread. The past success and current success in controlling SARS outbreaks will offer a lesson to the worldwide public health community for future emerging infectious diseases.

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FOREIGN AID: ROLE AND IMPACAT ON NEPALESE ECONOMY

Abstract

The economic importance of foreign aid resides not only in the fact that it provides the resources for the national budget; rather, it also helps to bridge the gap between national savings and investment. Foreign aid helps to meet the gap between excess of imports in and exports of goods and services. But after the age of 1990s, it was gradually realized that the role and impact of foreign aid in Nepal has been less effective. It is publicly held that it has not brought about the economic and social development that it had promised. In Nepal, foreign aid has widened gaps in economic opportunities between the rich and poor and also has increased dependency of country to the developed nations. This paper, basically, has discussed issues related to the role and impact of foreign aid to the development plan of Nepal as well as the composition of foreign aid in Nepal. There is a debate about the proper utilization of foreign aid in the developing country like Nepal and this article also examines the visions and ways of aid utilization for both donor and recipient countries.

Key words: foreign aid, utilization, dependency, developing, budget, economy, capital.

Introduction

The international transfer of public funds in the form of loans, grants, technical assistance of materials either directly from one government to another i.e., bilateral assistance or indirectly through the vehicle of multilateral assistance agencies like World Bank, International Monetary Fund, Asian Development Bank and other international agencies is called as the foreign aid. In simple meaning, economic help is known as the aid or charity for the helpless nation, but now a days; foreign aid is a relatively fluid concept. It is associated with the flow of resources and knowledge which is very complex, abstract and multi-dimensional in nature. In fact, it is very difficult to distinguish what aid is or what aid is not. Foreign aid in its generic sense is defined as the flow of capital and goods and materials from the developed to the less-developed or developing countries. In other words, net financial flows to the less-developed countries and multilateral organizations. The United International Economic Assistance to under-developed countries defined foreign aid as "all transactions-for a country or an international organization which result in a permanent net addition to total resources available for economic development of another country." After sometimes, UN modified the definition of foreign aid and according to

it, “it is only outright grants and net long-term loans for economic purposes.” The essence of foreign aid is that it consists of explicit transfer of resources financial and/or technical-form from the donors to the recipient countries on concessional terms. Thus, foreign aid is to help the poor or under-developed countries to move forward, into the industrial and technological age and it is also a co-operation with a foreign state which helps in furthering its economic growth and social human progress.

Mahat (2003) found that increasing availability of foreign aid has inhibited increasing mobilization of domestic resources. Therefore, it is necessary that the increasing external assistance be matched with the mobilization of internal resources at an even higher rate. Khadka (2006) examined the role of aid on Nepal’s economy during 1981-2010. He concluded that despite Nepal’s heavy dependence on foreign aid, the role of aid in improving the level of incomes, investment and savings has not been significant. Although aid has created socio-economic overheads at a high economic cost, it has failed to generate enough domestic savings. The failure of aid is also evident in agricultural sector where despite significant amount of aid invested, Nepal has turned from a net exporter of good grains to a net importer. Despite the growing dependence on foreign aid both in agriculture as well as on overall economy, an increase in dependence is associated with declining trend in food production and self-sufficiency.

Objectives of the Study

The general objective of this article is to assess the role and impact of foreign aid in the development of Nepal. The specific objective is to analyze the aggregate inflow of foreign aid during developmental plan of Nepal.

Significance of the Study

In an early phase of development, foreign aid is very crucial. It is an economic requirement of development process. The most developed countries today used to accept the foreign assistance in the initial stage of their development. Nepal is one of the LDCs consisting 26.4 million populations, at the increasing rate of 1.35 percent annually. The per capita income calculated as US$1004 (CBS, 2017). This is an evident that the living standard is unsatisfactory with the increasing inflation rate. One-fourth of the population lives under poverty line. Huge chunk of population suffers from mass poverty and inequality and government is not being able to do anything about it due to insufficient funds to provide with bare minimum facility as well. One of the biggest challenges of Nepalese government is facing poverty gap reduction. The development and facilities are so centralized to the capital, Kathmandu, leading it to hinder the

development in other provinces of the country. Generally, foreign aid is just a support for development purpose. But with regard to Nepal, it depends on the foreign aid to meet the basic needs of the citizen rather than stimulating development. Many economic experts in Nepal have claimed that foreign aid has done more bad than good in the context of Nepalese economy.

Materials and Methods

Analytical and descriptive methods are applied in this study. The simple mathematical tools and techniques are used to make the study effective. The data used in study is quantitative which are collected from the different sources like economic survey, Ministry of Finance (MoF), Nepal Rastra Bank (NRB), various plan documents and National Planning Commission (NPC) and Central Bureau of Statistics (CBS).

Historical Background of Foreign Aid in Nepal

The role of external assistance in economic development was recognized especially after the successes of Marshall Plan in the reconstruction of war- devastated Western Europe. Since the period of 1950s, a continuous flow of foreign aid in terms of financial, human and technological assistance from rich countries to poor countries is taking place. Before the Second World War or even the pre-democracy period, Nepal was not familiar with the integration of foreign aid. There had been three historical contexts to introduce the foreign aid in Nepal.

a) India's acquisition of dependence and its installation of parliamentary government,

b) The people's revolution and the installation of a communist government in China,

c) The overthrow of the Rana government and Nepal's gradual efforts to install a democratic government.

In case of Nepal, foreign aid was used as an instrument by the donor countries that were anxious either to show the political supremacy, to serve their rational economic interests or to protect or pursue the political ideology and systems of their choice and preferences. It was in the context of the political situation existing during the post-world war II era, that Nepal became the recipient of foreign aid from different countries and international aid agencies. In fact, the beginning of foreign aid in Nepal in a planned and systematic manner started with American assistance. Before the fall of Rana regime, the government of the USA signed a technical co-operation

agreement with Nepal under the four point program. The First Five Year Plan (1956-1961) was introduced in Nepal by the help of Colombo Plan consultative group; the USA, India and other donor groups. The UK, Switzerland, People's Republic of China and the United Nations came in only in the 1960s. The 1970s saw West German and Japanese aid in large volume while the Soviet Union maintained in its presence, during the 1980s, India was dominant, followed by the UK, People's Republic of China and the US. Multilateral lending agencies also began increasing their profile during this period. Japan was the biggest provider of aid to Nepal in the 1990s; the other big donors were the US and the UK. It was in this decade that small European nations like Denmark, Netherland, Finland and Norway emerged as important sources of aid, while traditional European donors like Germany and Switzerland continued their level of allocations, and multilateral agencies such as Asian Development Bank (ADB) and the World Bank increased their lending considerably (Mihaly, 2013).

In the aftermath of democracy in 1990, gradually, it was realized that the impact of foreign aid in Nepal has been less effective. Strong voices were raised regarding the misuse of foreign aid in Nepal. Against these all background, Nepal formulated the First Official Foreign Aid Policy in 2002. The main goal of the Foreign Aid Policy 2002 has been to maximize the benefits of aid and enhance effectiveness of aid in terms of better outcomes and achievements. After that period to now, Nepal has been getting large amount of foreign aid but it has no direct impact in the development of the country except the increasing dependency of the nation towards the developed nations and multilateral agencies.

Role and Impact of Foreign Aid in the Developmental Plan of Nepal

It is difficult to assess the role and impact of foreign aid in the plan performance; growth and other developmental activities in Nepal. Since the period of 1950s, Nepal has received significant foreign help enabling her to bring in significant number of changes in its infrastructure. But the level of hunger, poverty, illiteracy rate, economic inequality and unemployment increasing instead of decreasing; which is the major problem of Nepal. To avoid these problems, Nepal always seeks to grab foreign aid that is development aid or foreign assistance; loan, foreign tools and technology, foreign knowledge and metrical culture. Development aid seems to be a regular fashion for all ruling governments either left or right. The success or failure of government mostly depends upon the amount of foreign aid and Nepal's

development means, "how much money does she manage in the name of innocent poor people from the capitalistic world?" This explains Nepal's entire development process, agenda and plans are based on foreign aid (Mishra, 2015). Hagen (1995) wrote, "Such types of development aid led to a state of affairs called development colonialism; which in its impact is much worse than the dependence of former colonies on the colonial power ever was." Many experts, politicians, sociologists and development planners believe that by utilizing foreign aid, Nepal will achieve the status of self-dependence, self-reliance and self-determination but this seems to be only utopian or hypothetical because more development aid means more dependency and more dependency means **more under-development**. From the very beginning of the Nepalese planning, Nepalese development plan heavily depended on foreign aid. Despite the growing recognition and consensus that the share of the foreign component in resources management should be reduced significantly, this tendency is still continuing. During the Ninth Plan (1997-2002), the contribution of foreign aid was 56.3 and approximately same during the Tenth Plan (2002-2007). The share of foreign aid from the First Development Plan to 14th Development Plan is highlighted in Table -1.

Table -1
Summary of Foreign Aid Flow in Nepal

Development Plan	Capital Expenditure (NRs. in Million)	Total Foreign Aid (NRs. in Million)	Percentage of Foreign Aid
1st Plan (1956-61)	382.90	382.90	100.00
2nd Plan (1962-65)	614.70	478.30	77.80
3rd Plan (1965-70)	1,639.10	919.80	56.10
4th Plan (1970-75)	3,356.10	1,509.10	45.00
5th Plan (1975-80)	8,870.60	4,264.10	48.10
6th Plan (1980-85)	21,750.0	13,260.0	61.00
7th Plan (1985-90)	32,772.0	16,327.0	49.80
8th Plan (1992-97)	87,052.0	47,445.0	54.50
9th Plan (1997-2002)	128,777.0	68,312.0	53.00
10th Plan (2002-2007)	16,200.25.	9,131.25	56.84
11th Plan (2007-2010)	28,030.1	16,853.75	60.13
12th Plan (2010-2013)	364,340.0	249,280.0	68.42

13th Plan (2013-2016)	212,173.3	196,878.5	92.79
14th Plan (2016-2019)	721,024.52	378,664.1	52.52

Source: Various Plan Documents, NPC and Economic Survey Issues, Ministry of Finance, Government of Nepal.

The data given in Table -1 shows that, all development plans have depended upon the foreign aid, from the first development plan to 10th development plan, the contribution of foreign aid amounts to about two-thirds of funds which leads to continue over dependency on external aid. The amount of foreign aid has been increasing but it has less implications. Although the development plans of Nepal are still totally based or fully dependent on the external aid but they also fail to fulfill the following targets of the plan, which are the basic role of planning in the era of globalization:

i. To set national goal and drive resources to achieving it,
ii. To maintain macro-economic stability,
iii. To make the weaker section of the population competitive and maintain competition in the market,
iv. To maintain public services until the private sectors can supply it to the public at affordable rates,
v. To correct new market failures (Nepal, 2015).

Except these roles, poverty is the chronic disease of Nepal. To alleviate poverty is the central objective of all development plan on Nepal, but it is only in paper and plan until the poverty remains at the center of all problems and the structural problems do not allow market forces to address poverty in a meaningful way and required pace, the role of the state in economic management can never be overlooked. Even in the era of globalization, the structural problems of developing countries like Nepal have remained the same. There are stark income inequalities among income groups and across regions, regional disparities in terms of development indicators are alarming; subsistence agriculture has not been transformed to commercial one and via it to industrialization; social exclusion, gender imbalance and deprivation have continued since centuries and power relations have remained the same irrespective of the change in political system. The major problems of development plan and its aid is that it never reached up to target group for whom it was meant, and only the politicians, bureaucrats, and development planners enjoyed it.

Structure and Composition of Foreign Aid

Over the period of past 55 years, Nepal enthusiastically received the large amount of foreign aid. During the 1950s and 1960s; foreign aid in Nepal was not like today's conception of aid. It was a composition of charity and grants; just a flow of resources to a poor and least-developed nations from rich and developed nations. The limited economic activities and capacities restructured Nepal during that period to be totally dependent on grants for her economic drive. Up to 1960s assistance was primarily in the form of grants, but with the time the proportion of grants decreased while that of loans went up the structure of foreign aid is given in Table - 2.

Table- 2
Foreign Aid in Nepal

(NRs. in Million)

Year	Loan	Grant	Total
1951-60	-	202.14	202.14
1961-70	26.30	1,665.52	1,691.82
1971-80	5,363.83	3,822.28	9,186.11
1981-90	26,481.60	12,943.80	39,425.40
1991-2000	89,697.01	1,45,496.91	1,35,193.92
2001-2006/07	59,451.90	80,081.60	1,39,533.50
2007/08 - 2012/13	57,26,300	85,88,880	1,43,15,180
2013/14-2015/16	76,842.9	120,035.6	196,878.5
2016/17-2018/19	275,627.4	103,036.7	378,664.1

Source: Economic Survey, MoF and Different Plan Documents of the Government of Nepal.

The country's first foreign loans in 1964 comprised just 10 per cent of the foreign aid but the proportion that began to rise steeply during 1970s. In 1980s loans constituted 67.16 per cent of total foreign aid, 64.32 per cent loan constituted in 1990s. From the mid of 1990s and onwards, because of the greater involvement of INGOs, many of which work through grants, the proportion of loans has begun declining but it is still very significant and during 2000s loans constituted up to 70 per cent of total foreign aid.

Thus, Nepal's loan dependency is very high in comparison to the other countries. Despite the more than five decades of development efforts of Nepal, the contribution of loan is almost two-

thirds in the total foreign aid. So, Nepal is increasingly dependent on the foreign loan rather than the grants.

Reasons of Aid Ineffective in Nepal

Foreign aid is totally ineffective in Nepal because it served the interests of the donors as economic consideration provide even more compelling justification for the existence of aid than political and strategic. Foreign aid is ineffective in Nepal and creating the dependency towards the development of countries for which the following reasons have been put forward:

a) In Nepal, those politicians in power have relatively very small sense of responsibility for their own people. It means the donors provide aid to the elites who are responsible for the exploiting relations in the country.

b) The donor countries export such technology to the Nepal with which the industrialized countries themselves can no longer use for efficient production. It means that all the technology work as a turnkey project.

c) Foreign aid is only serving the firms and suppliers of donor countries, rich people, bureaucrats, ministers and power authorities of Nepal and it never reaches up to the targeted people.

Thus, the attitude for foreign aid is of dependence. An unhealthy tendency of foreign aid, **a free lunch for Nepali,** has been developed. It means that the resources are misallocated or expenditures are incurred without a clear strategy. The government of Nepal must formulate the new strategy to proper use of foreign aid, which will produce new industries within the country, create additional employment opportunities, generate additional income, boost exports, encourage investment and further will help to decrease the dependency of Nepal towards the donors and other foreign aid agencies.

Foreign Aid and Prosperous Nepal

The government should adopt following different measures to make prosperous Nepal utilizing foreign aid in Nepal:

- Corruption should be controlled by the government.
- Public-private partnership (PPP) program should be activated to make prosperous Nepal.
- Foreign aid should be utilized honestly by the bureaucrats and political leaders.

- Foreign aid should be utilized as capital expenditure only in the country.
- Foreign aid should not be taken if given conditionally by the donors.

If foreign aid is utilized properly and effectively by the government, there is more probability of prosperous Nepal.

Conclusion

The external assistance came for the first time in Nepal in the Fiscal Year 1951/52 but the amount of aid steadily expanded after the beginning of planned development in Nepal in 1956. The government budgets or sources show that during the period of 1985 to 2005, foreign aid increased by almost 9/10 times than the initial period but the philosophy of foreign aid in Nepal is still traditional. According to D.B. Bista, "the attitude to foreign aid is greatly affected by the Nepali sense of paternal dependency. Foreign aid donors are sometimes seen as father-surrogates" and has no result-oriented implication. The evaluation of the impact of aid is a complex process because aid begets so many elements. Kaplan has rightly pointed out that there are a number of critical elements determining the impact of aid:

i. The intentions of the receiving government with respect to all the resources at its command whether they are aid supplied domestically produced or imported with its own foreign exchange earnings.
ii. Its managerial capacity to carry out its intentions with the resources available.
iii. Its understanding and attentiveness to the expectations of aid donor in making its contributions.
iv. The effectiveness of its social and political institutions and the external pressure and antagonism that affect its international behavior (Kaplan, 2006).

In the case of Nepal, there are two types of versions about the effectiveness of aid. Organizations like the World Bank, Asian Development Bank (ADB), and the Unite States AID (USAID) evaluate it positively but many other experts take it negatively. According to USAID, "Nepal has raised significant advances in agriculture, health, education, transportation, services and number of Nepalese trained for technical administrative occupations," but the message or the question would be same: the progress is there, and the progress is not there. (Pandey,1999).

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ON A QUASI NEGATIVE BINOMIAL DISTRIBUTION AND ITS APPLICATION OF MIGRATION AND PPA

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Abstract

A Quasi negative binomial distribution, in which the probability of an event is linearly dependent on the number of failures, has been studied. Some models leading to this distribution have been discussed. The estimation of its parameters has been discussed and the distribution has been fitted to some observed sets of data to test its goodness of fit.

Key words: NBD, QNBD, URN MODEL, MIGRATION, PPA (Post Partum Amenorrhea)

Introduction

The 'Quasi Negative Binomial Distribution' (QNBD) which has the tremendous capability of fitting to the observed discrete data of any nature. The focal point for this distribution is that the probability of an event is linearly dependent on the number of previous events, which appears to be more realistic for many real life situations.

The post partum amenorrhea (PPA) is one of the important biological factors affecting the human reproduction process. This is the period of temporary sterility immediately the termination of pregnancy during which conception does not usually occur.

It is generally observed that migration from any place is much dependent on the number of persons already migrated from that place. Migrated people from a place encourage others to migrate from that place. So for explaining data regarding migration such distribution in which probability of an individual migration depends upon the previous numbers of migration should be thought of quasi negative binomial distribution is the distribution considered in this chapter to fit to the migration data. It is a well -known data related to migration. First of all the estimation

of the parameters of the distribution has been discussed and the estimates obtained by these methods have been used to fit these distribution to obtained the data-sets.

URN MODEL

In this URN model, only the direct sampling scheme has been considered. This URN model gives generalizations of the classical 'negative binomial distribution' if inverse sampling scheme is used.

Let there be two URNs U_1 and U_2. Let U_1 contain 'a' white balls and U_2 contain 'a' white and 'b' black balls. Let 'm' and 'θ' be two given positive integers. A strategy is decided by choosing a positive integer k($0 \leq k$), and adding kθ black balls to U_1 and kθ white & mθ black balls to U_2. The URN experiment then consists in drawing one ball at random from U_1. The outcome of a white ball from U_1 results in termination of the URN experiment in a failure. In case a white ball is obtained from U_1 then draws are made one by one at random and with replacement from U_2 until m black balls are obtained. The experiment results are in a success if exactly (m+k) draws are needed to obtain m black balls from U_2 otherwise, it results in a failure.

The contents of the URNs in relation to the strategy decided are presented in the following Table:

Table-1

URN Model

	Urn Colour	U_1	U_2
Pre Strategy	white black	a -	a b
Post Strategy	white black	a kθ	a+ kθ b+mθ
Total		a+ kθ	a+b+(m+ k)θ

The joint probability of the player success in this URN experiment is obviously given by

$$P(k)=\frac{a}{a+k\theta}\binom{m+k-1}{k}\frac{(a+k\theta)^{k}(b+m\theta)^{m}}{(a+b+\overline{m+k}\theta)^{m+k}}$$

On writing, $\frac{a}{b+m\theta}=\alpha_1$ and $\frac{\theta}{b+m\theta}=\alpha_2$

The relation may be written as,

$$P(k)=\binom{m+k-1}{k}\frac{\alpha_1(\alpha_1+k\alpha_2)^{k-1}}{(1+\alpha_1+k\alpha_2)^{m+k}}$$

Nandi and Das (1994) proved with the help of 'Abel series' that is a true probability distribution.

The distribution in above termed as 'Quasi Negative Binomial Distribution' (QNBD). It is to be noted that QNBD reduces to the classical 'Negative Binomial Distribution' (NBD) on putting $\theta = 0$.

Estimation of Parameters of QNBD

The Quasi negative binomial distribution (QNBD) of the following form:

$$P(X=x)=\binom{m+x-1}{x}\alpha_1\frac{(\alpha_1+x\alpha_2)^{x-1}}{(1+\alpha_1+x\alpha_2)^{m+x}},$$

$$x=0,1,2,\ldots\ldots$$

has been attempted to fit to some real life data. The parameter 'm' is assumed to be predetermined. The parameters α_1 and α_2 are estimated using the first two frequencies of the given frequency distribution as,

$$\alpha_1=\left[\frac{N}{f_0}\right]^{\frac{1}{m}}-1,\quad \alpha_2=\left[\frac{mN^{\alpha_1}}{f_1}\right]^{\frac{1}{m}}-1-\alpha_1$$

Where, α_1 is the estimated value of α_1 and f_1 is the frequency for x=1 in the frequency distribution.

Goodness of Fit of QNBD

Singh and Yadav (1981) have recommended the study of migration at micro level which provides information for regional planning, housing policies and sociological models of the

family community and of individual in general. On the basis of data obtained from Varanasi Survey (1989-90) they have shown that the complete NBD provides good fit to the distributions of number of households classified according to the number of migrants of different household size groups. We have, here, attempted to fit the QNBD to describe the distribution of number of households according to the number of migrants of different household size groups to some of the data collected in the Demographic Survey of Varanasi (rural) 1989-90.

Table-2

Observed and Expected Number of Households of Size Group 4 - 6 according to the Number of Migrants

No. of Migrants (x)	Number of Households	
	Observed frequency	Expected frequency
0	651	651
1	120	120
2	28	24.9
3	3	5.6
4	1	1.5
Total	803	803
χ^2		1.7597
d.f.		2
$\hat{\alpha}_1$		0.05386
$\hat{\alpha}_2$		0.02205

Table-3

Observed and Expected Number of Households of Size Group 10 - 15 according to the Number of Migrants

No. of migrants (x)	Number of Households	
	Observed frequency	Expected frequency
0 1 2 3 4 5	132 83 54 18 4 1	132 83 48.5 18.8 8.8 0.9
Total	292	292
χ^2		3.28704
d.f.		3
$\hat{\alpha}_1$		0.17209
$\hat{\alpha}_2$		0.03065

Table-4

Observed and Expected Number of Households of Size Group 10 and above according to the Number of Migrants

No. of Migrants (x)	Number of Households	
	Observed Frequency	Expected Frequency
0	24	24
1	19	19
2	21	18.9
3	16	14.9
4	9	6.3
5	2	4.5
6	2	3.3
7	1	2.5
8	1	1.9
Total	95	95
χ^2		4.6991
d.f.		6
$\hat{\alpha}_1$		0.18765
$\hat{\alpha}_2$		0.06337

Table-5

Observed and Expected Frequencies of the Distribution of PPA following First Live Births

Duration of PPA (In months)	X	Number of Households	
		Observed Frequency	Expected Frequency
1-3	0	98	98
3-5	1	90	90
5-7	2	60	62.9
7-9	3	38	40.7
9-11	4	27	25.9
11-13	5	25	23.3
13-15	6	14	10.7
15-17	7	8	7.1
17-19	8	5	4.8
19-21	9	2 (9)	3.3
21+	10	2	2.3
Total		369	369
χ^2			2.17499
d.f.			6
$\hat{\alpha}_1$			0.14177
$\hat{\alpha}_2$			0.03174

Conclusion

It is obvious from Table 2 to 5 that the complete QNBD describes the distribution of number of households very well according to the number of migrants of different household size groups. Therefore, we suggest here to use the complete QNBD instead of complete NBD as suggested by Singh and Yadav (1981) for fitting the distributions of number of households classified according to the number of migrants.

An attempt has been made to study the adequacy of zero-truncated QNBD to describe the distribution of the number of households when the number of households with no migrant in not available. It has also been tried to fit an alternative to zero truncated QNBD which is termed as size biased QNBD, to the same data sets.

On fitting, it is found that the size biased QNBD describes the distribution of number of households according to the number of migrants when the number of households with no migrants is not available, in a better way than the zero truncated QNBD. This may be probably because of the general nature of migration which occurs in batches and it increases in proportion to its size. Theoretically, in size biased QNBD the probability under study is also multiplied with the size and so size biased QNBD is best suited for the migration data when the household with no migrants is not known.

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IMPACT OF NOVEL CORONA VIRUS (COVID-19) PANDEMIC ON NEPALESE ECONOMY

Abstract

Public health concern is increasing with a recent rise in the number of COVID-19 cases in Nepal. To curb this pandemic, Nepal is facing some forms of lockdown, encouraging people to implement social distancing so as to reduce interactions between people which could eventually reduce the possibilities of new infection; however, it has affected the overall physical, mental, social and spiritual health of the people. The objective of this study is to analyze the impact of Covid-19 in Nepal including South Asian countries. Secondary data from Ministry of Health and Population (MoHP), Central Bureau of Statistics (CBS), magazines, and different websites have been used for this study. The nature of this study is qualitative as well as quantitative. This is true that just calculating the impact on tourist trips, hotels, declines in retail trade, decline in remittance, close-down of education centres are not enough to get the real picture of impact on economy in Nepal. There are some linkages in economy across various sectors; both direct and indirect impact need to be calculated as economic shock of one nation will be directly linked to other nations in this global world. The impact illustrated through the qualitative data is far greater than the cost to a health budget of treatment of the cases involved. The more persistent shock is Corona lasting for longer than anyone hopes in this increased globalization. There is need of global monitoring and coordination mechanisms in containing both economic and microbial epidemics as the impact is higher than expected.

Key words: Novel Corona Virus, Impact, Economy, Remittance, Tourism, Labour Market, Covid-19.

Introduction

The segment on the socio-economic impact of COVID-19 is still under development as the full extent of the impact is yet to be known. It is expected that those hardest and most immediately affected by the crisis and the necessary measures of lock-down will be the most vulnerable. The Nepal Preparedness and Response Plan (NPRP) is a living document and will be updated as the situation evolves and as the needs of vulnerable populations are identified. The definition of vulnerable populations is based on that laid out in Agenda 2030 and includes - but is not limited to - women, children, youth, persons with disabilities (of whom more than 80% live in poverty), people living with HIV/AIDS, elderly persons, indigenous peoples, refugees, internally displaced persons and migrants.

Corona Virus: At a Glance

Corona-viruses are a group of RNA viruses that cause diseases in mammals and birds. In humans and birds, they cause respiratory tract infections that can range from mild to lethal. Mild illnesses in humans include some cases of the common cold (which is also caused by other viruses, predominantly rhinoviruses), while more lethal varieties can cause SARS, MERS, and COVID-19. In cows and pigs, they cause diarrhrea, while in mice they cause hepatitis and encephalomyelitis. There are as yet no vaccines or antiviral drugs to prevent or treat human coronavirus infections (Decaro, 2011).

A novel corona virus named *Severe Acute Respiratory Syndrome* corona virus 2 (SARS-CoV-2) was first identified in a seafood market in Wuhan City, Hubei Province in China, at the end of 2019 (Zhu et al., 2020). The contagious respiratory illness caused by this novel corona virus is called corona virus disease 2019 or, in short, COVID-19 (Wu et al., 2020). Corona Virus is any of a family (*Coronaviridae*) of large single-stranded RNA viruses that have a lipid envelope studded with club-shaped spike proteins, infect birds and many mammals including humans, and include the causative agents of MERS, SARS, and Covid-19 (Stein, 2020).

On 30 Janaurary 2020, the World Health Organization declared a Novel Coronavirus ‘COVID-19’ a matter of public health emergency of international concern. In February of 2020, with the

first death from COVID-19 in France and a steep increase of positive cases in Europe (Klonowska, 2020). COVID-19 is spreading fast across the glove.

The COVID-19 pandemic will have multi-faceted and widespread impact on the Nepalese economy. The country is still in lockdown phase. The extent of possible spread of COVID-19 and the need for its containment and treatment are uncertain. Thus, relaxation of restrictions to allow economic activities to start operation is also uncertain. Saving life and containing the spread of the virus is the first priority. At the same time, there is an unprecedented and urgent need for interventions and actions to save economy in this difficult period than any time before. To the extent possible, such interventions and actions should be based on plausible evidences and assumptions, which should be updated as events unfold.

Novel Corona Virus (COVID-19 or 2019-nCoV) is an emerging global health concern that requires a rapid diagnostic test (Lamb et al., 2010). According to World Health Organization (2020): "Corona-viruses (CoV) are a large family of viruses that cause illness ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERSCoV) and Severe Acute Respiratory Syndrome (SARS-CoV)." WHO (2020) further states that Corona viruses are zoonotic, meaning they are transmitted between animals and people. Detailed investigations found that SARS-CoV was transmitted from civet cats to humans and MERS-CoV from dromedary camels to humans. Several known corona viruses are circulating in animals that have not yet infected humans.

Objectives of the Study

The general objective of this study is to explore and understand the overall impact of Novel Corona Virus pandemic on Nepalese Economy in 2020. The specific objectives of this study are as follows:

- To identify the impact of COVID-2019 pandemic in Nepalese economy,
- To give an overview of COVID-2019 pandemic in economic parameters in Nepal,
- To analyze the impact of COVID-19 pandemic in Nepal and global level.

Materials and Methods

Secondary data have been taken from Ministry of Health and Population (MoHP), Central Bureau of Statistics (CBS), magazines, published articles, economic and disaster offices and different websites for this study. The nature of this study is qualitative as well as quantitative. Descriptive and analytical methods have been used to analyze the data. The transmission approach looks like this:

COVID-19↑→ *Remittance inflow*↓→ *Economic Growth Rate*↓

Novel Corona Virus Pandemic and Nepalese Economy

1. GDP in FY 2020-21

The real GDP would have a growth rate of 6.2 percent in FY 2019-20 if COVID-19 pandemic had not affected Nepalese economy and economies worldwide. Economists have projected that economic growth rate of India will be about (-) 7 percent. GDP has lost 1.61 percent if 1^0 temperatures will increase. GDP has decreased 4 trillion Nepalese rupees from 39 trillion Nepalese rupees (https:// www.adb.org).

The World Bank has projected Nepal's economic growth for 2020-2021 at 0.6 percent if COVID-19 disruptions persist and relief expending weakness growth could be as little as 0.1 percent. Global growth is projected to rise from an estimated 2.9 percent in 2019 to 3.3 percent in 2020 and 3.4 percent for 2021—a downward revision of 0.1 percentage point for 2019 and 2020 and 0.2 for 2021 compared to those in the October World Economic Outlook (WEO) (https://www.imf.org).

Table-1: Economic Growth Rate of SAARC Countries

Country	Year			
	2019	2020	2021*	2022*
Afghanistan	3.9	-5.5	2.5	3.3
Bangladesh	8.1	2.0	1.6	3.4
Bhutan	3.8	1.5	1.8	2.0
India	6.1	4.2	-9.6	5.4
Maldives	5.9	-1.9	9.5	12.5
Nepal	7.0	0.2	0.6	2.5
Pakistan	1.0	-1.5	0.5	2.0
Sri-Lanka	2.3	-6.7	3.3	2.0

Source: Kantipur, 2020, Friday, October-9. * means estimated growth rate.

Table-2: Economic Growth Rate of Nepal

Economic Growth Rate (%)				
Fiscal Year	Q1	Q2	Q3	Q4
2017-18	3.4	6.1	5.5	8.0
2018-19	8.5	7.0	6.2	5.2
2019-20	5.4	4.2	0.8	3.4

Source: Quarterly Report on GDP (CBS, 2020)

Economic growth rate of the world has decreased 4.4 percent, 5.8 percent of developed countries, 4.3 percent of the USA, 8.3 percent of the European Union sector, 3.3 percent of emerging countries and 10.3 percent of India. The International Monetary Fund (IMF) has projected that economic growth of People's Republic of China is only 1.9 percent.

2. Employment and Job Loss

It is estimated that about 9.2 lakh persons might lose their jobs in the domestic economy during the remaining of FY 2019-20. The domestic job losses come mainly from the non-agriculture sector of the economy. From 5.1 lakh to 6.4 lakh Nepalese people working abroad might return home during FY 2020-21. This means that the economy will have from 11.7 lakh to 15.6 lakh people looking for employment. It is assumed that these job losses will add pressure to agriculture and rural employment.

Table- 3: Estimated Job Loss in FY 2020-21

	Employment	Job loss range		Estimated job loss range	
	(thousands)	(percent)		(thousands)	
Domestic Economy	**15,905.6**	4.1	5.8	657.1	924.4
Agriculture	10,305.0	0.8	1.5	77.3	154.6
Non-agriculture	5,600.5	10.4	13.7	579.8	769.8
Industry	2,196.4	14.0	18.0	307.5	395.4
Service	3,404.1	8.0	11.0	272.3	374.5
Foreign Employment	3,200.1	16.0	20.0	512.0	640.0
Total	**8,800.6**			**1,169.1**	**1,564.4**

Source: Labour force surveys, CBS for total employment.

It is widely expected that COVID-19 will prevail for a prolonged period and unemployment will further increase.

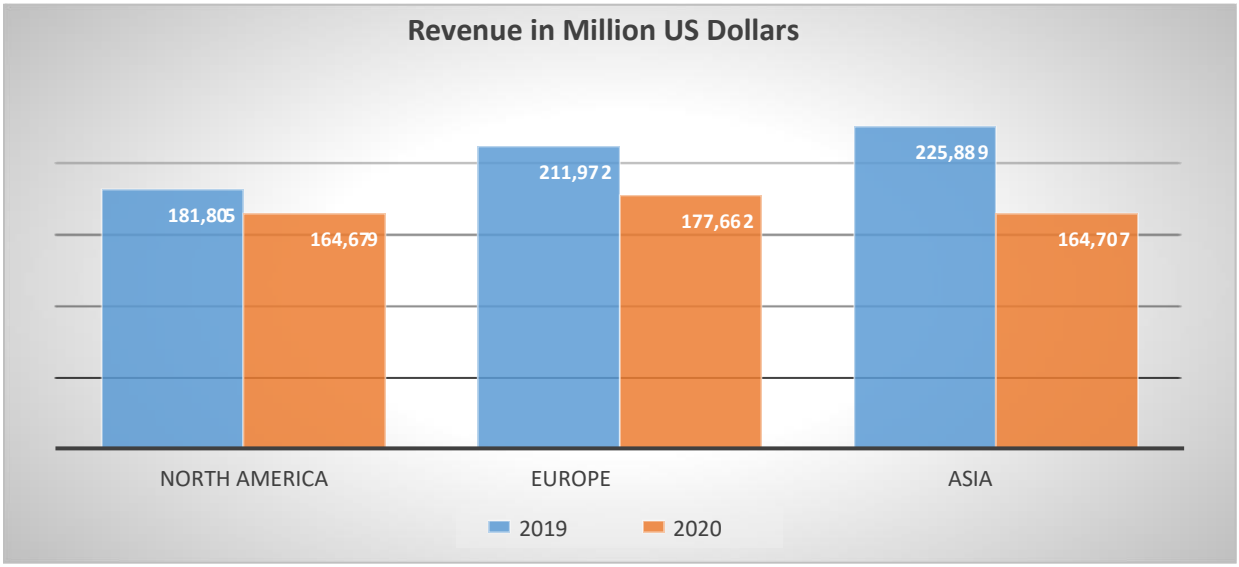
3. Poverty

An additional 1.65 percent of population (about five lakh people) is estimated to fall below the poverty line due to the short-term economic impact of COVID-19 in FY 2019/20, thus, falling under the transient (short-term) poverty category. At the same time, poverty intensity is estimated to increase from 3.40 to 3.74 percent. These estimates assume contractions of farm income by 0.5 percent, non-farm income by 4.5 percent and remittances by 15.5 percent and use sector-wise income weights by consumption quintile. Nepal is in the first point among 17 countries in Asia. Poverty has increased by 12 percent in Nepal (Transparancy International, 2021, February).

4. Impact on Trade and Tourism

India and China are the major trade countries for Nepal. As the precautionary measures to avoid COVID-19 spread in Nepal, the Government of Nepal closed Rasuwagadhi border on 28 January, completely halting Nepal–China trade (*My Republica*, 2020a). This closure limited the availability of raw materials which used to come from China for manufacturing goods. On 22 March, 2020, Nepal closed its open borders with India resulting in serious effects in the import and export of goods. Import has lost 12.5 percent due to Corona-Virus (*The Economic Times*, 2020). This resulted in a situation of panic-buying and hoarding of goods among the Nepalese, creating a shortage of goods and supplies. Thousands of Nepalese, who wanted to return to Nepal, got stuck at Indian border points (*Al Jazeera*, 2020). The travel restriction to and from different international destinations was put in place as a measure to prevent the spread of COVID-19 infection, which massively affected the tourism sector. A large number of Nepalese labour migrants and students could not return to their destinations abroad from Nepal, resulting in serious havoc. Tourism sector has decreased from 3.6 percent to 1.5 percent (CBS, 2020).

Fig. 1: Forecasted Change in Revenue from the Travel and Tourism Industry due to COVID-19 Pandemic Worldwide from 2019 to 2020, by Region



Source: https://www.statista.com/forecasts/1103431/covid-19-revenue-travel-tourism-industry-region-forecast

5. Impact on Agriculture

The agricultural crops, livestock and fisheries are not outside the impact of COVID-19 pandemic. Being an agricultural country, the travel restriction and lockdown have affected every stage of the food supply chain, including food production and distribution in Nepal. Farmers are compelled to dump milk and vegetables after a significant decrease in supply and closure of processing companies and proper markets (Poudel et al., 2020).

About 60 percent of employment depends on agriculture (CBS, 2011). Employment in agriculture in 2017-18 stood at about 103 lakh. On an average, about 13.5 lakh people are expected to return to their home from urban areas and from abroad in the short-run. That could add about 13 percent to the existing employment in agriculture. As COVID-19

pandemic has reversed the trend of migration, agriculture must be developed in the short-run in such a way that it will provide employment opportunities and boost agriculture production.

6. Impact on Education

The action of the Government of Nepal to close all educational institutions, postponement of all national level examinations and restriction on the gathering of more than 25 people together led to an outflux of more than 300,000 people from Kathmandu in 3 days (*Rising Nepal Daily*, 2020). Perception of the rural municipality environment as pure, free from germs and contamination, and unlikely to get corona virus might have led to the surge in the outflux of people. The drastic increase in new infection rates, lesser tests, increased media reporting and death tolls have increased public anxiety. The absence of clear messages and the desire for facts have heightened fear among the public and propelled them to seek information from less reliable portals (Rubin & Wessely, 2020). The current pandemic has imposed multiple restrictions on research as laboratories have been closed, and scientists and researchers have been working from home, limiting recruitment in studies. According to the World Bank (2020b), the COVID-19 pandemic has caused more than 1.6 billion children and youth in 161 countries to be out of school, which is close to 80 percent of the world's enrolled students.

7. Impact on Media Sectors

The infodemics, misinformation and inaccurate conception are spreading quicker from fake and unauthorized news portal websites, contributing to myths and rumors in the society. Myths related to alcohol, adding hot peppers, ginger and garlic to food, and exposing oneself to temperatures higher than 25° or to cold weather and snow to kill the corona virus are misleading people. Therefore, there is a need to be thoughtful and conscious when communicating through social media and other communication platforms (UNICEF, 2020a).

8. Impact on Health Sectors

The COVID-19 pandemic has brought serious psychological impact among health workers, students and the general public around the globe. Although Nepal lacks routine national-level

data on suicide, the data from media and the police suggest that about 5,000 Nepalese people commit suicide every year. The pandemic-related restraints, such as spatial distancing, isolation and home quarantine areaffecting the economic sustainability and wellbeing, which may induce psychological mediators such as sadness, worry, fear, anger, annoyance, frustration, guilt, helplessness, loneliness and nervousness (Bhuiyan et al., 2020; Mukhtar, 2020). In the first month of the nationwide lockdown, a total of 487 people committed suicide, which is 20 percent more compared with mid-February to mid-March, when the number stood at 410 (*My Republica*, 2020b). The data compiled by Nepal Police show that from the onset of lockdown, 23 March till 6 June, a total of 1,227 suicide (16.5 a day) cases were filed. By the time, the government lifted the lockdown on July-21, without utilizing the period to improve health care facilities and increasing the number of hospital beds and ventilators, the number of cases had crossed the 115,358 mark (MoHP, 2020, October-13).

9. Impact on Vulnerable People

According to the Nepal Living Standards Survey 2010– 2011, 25 percent of the population lived below the poverty line (CBS, 2011). The link between poverty and communicable disease is well-evident (Alsan et al., 2011; Bhutta et al., 2014). The slowing of economic growth means incomes will stagnate or even fall and this will impact the living standards of people, especially those with lower incomes (vulnerable people). COVID-19 is no exception and has triggered increasing unemployment, loan defaults and major economic losses around the globe (Kantamneni, 2020). The economic downturn caused by COVID-19 can increase the economic instability, health inequalities and social disparities in Nepal, which can have a huge impact on the poverty levels. While the lockdown has affected traders, especially people with small shops and those with limited sources of income, the poor, marginalized people and daily wagers are more vulnerable.

10. COVID-19 Impact on Households

The COVID-19 crisis triggered multidimensional social and economic impacts that stretch beyond the primary health crisis. To assess how this crisis is affecting households, a series of questions related to food security, livelihood, and vulnerability were asked. This household analysis reviews (1) impacts on food security, (2) impacts on livelihoods and income, and (3)

examines household profiles of those most affected by the ongoing crisis. Price of vegetables has increased by 23 percent (*Kantipur* 2020, November).

11. Impact on Household Food Security

To ascertain the current food security situation of surveyed households, two dimensions were examined: (1) households' food consumption patterns and changes in food consumption habits, and (2) households' access to food. Additionally, the survey observed the diet quality of children between 6 and 23 months of age by measuring minimum dietary diversity.

The Food Consumption Score 2 (FCS) is a key component for assessing diet quality. The FCS is used to categorize households into three groups: poor, borderline, and acceptable food consumption. Poor food consumption corresponds to less than 1500 kilocalories (kcal) eaten per person per day. At national level, nearly 1 out of 4 households had inadequate food consumption, with 9 percent of households consuming poor diets and another 14 percent borderline diets.

12. Impact on Livelihoods and Income

One of the most telling questions was on the impact of COVID-19 on livelihoods and income sources. Livelihood and income sources are central to assessing households' access to food as well as their vulnerability to shocks.

13. Remittance from Foreign Employment

Amid all doom and gloom, remittance so far has been a silver lining. Remittance inflows to Nepal increased by a surprising 23 percent in the first month of the current fiscal year, fortunately refuting forcasts that the income of Nepalese migrant workers would crash due to the Corona-Virus pandemic affecting the global economy. The growth in remittance has been surprising despite tens of thousands of Nepalese migrant workers in out of the job in major hiring destinations abroad (The World Bank, 2020-2021).

Table-4: Overview of Remittance in Nepal

Total remittance introduced in FY 2018/19	NPR 879.30 Billion
Sector Contribution to GDP in FY 2018/19	25.3 percent
Number of countries where Nepalese are migrated through Labour Approval	172
Major destinations of Nepalese Workers	Qatar, The United Arab Emirates, Saudi Arabia, Kuwait, Bahrain, India, Malaysia, The United States of America, Japan, South Korea, etc.
Number of workers receiving labour approval for foreign employment from FY 2009/10 to mid-March of FY 2018/19	4,540,906

Source: The World Bank 2020-2021.

Nepal, 19th top remittance achiever in 2019, is popular for exporting labour because of various reasons like civil war, political persecution or economic hardship. Dhungana (2014) observed that most of the remittance in Nepal is going into consumption, which leads to the dearth of resources for investment. The pandemic badly affects the international labour market for Nepalese workers. Thus, it is clear that COVID-19 is going to deteriorate the remittance inflow and is doing other harms to the Nepalese economy (Chaudhary, 2020).

Table-5: Ratio of Remittance with GDP of Nepal

Fiscal Year	**GDP of Nepal (In NRs. "Billion")**	**Total Remittance Inflow (In NRs. "Billion")**	**Ratio of Remittance with GDP**
2019/20	3914.40	950.40	24.3
2018/19	3,464.30	879.30	25.3
2017/18	3,031.00	755.10	24.9
2016/17	2,674.50	695.45	26.0
2015/16	2,253.20	665.06	29.5
2014/15	2,130.10	617.28	28.9

Source: Economic Survey, MoF, FY 2020/21

Current and Potential Impact on Remittance Sector

12.5 percent increase has been observed in remittance sector and 2 trillion, 58 billion rupees has been received as remittance in Nepal (NRB, 2020). Remittance income will be severely affected due to COVID-19 pandemic. The income has fallen by 0.5 percent per annum in mid-February 2020 after rising by 16 percent for the same period in the earlier year (NRB, 2020). Remittance income of about NPR 879.30 billion per fiscal year, which is 25 percent of GDP, is one of the major sources of foreign earnings. A sharp decline of remittance will undermine Nepal's external stability. During the first seven months of current fiscal year (FY 2019/20). Nepal has received remittance of NPR 513.20 Billion of which 50 percent was from 5 Gulf Countries - Qatar, The United Arab Emirates, Saudi Arabia, Kuwait and Bahrain (NRB, 2020). The remittance income has decreased from 30 to 40 percent in Nepal during this period. It will affect employment and total domestic production (CBS, 2020).

14. Foreign Direct Investment (FDI)

Foreign direct investment from developed countries has decreased by 27 percent due to Corona-virus pandemic at global level (NRB, 2020).

Conclusion

While many countries are supporting their citizens with sophisticated health safety-nets and various relief funds, some developing countries have unique challenges with vulnerable populations and limited resources to respond to the pandemic. This study presents the consequences of pandemic and lockdown on socio-economic, mental health and other aspects in Nepalese society. The lockdown curfews, self-isolation, social distancing and quarantine have affected the overall physical, mental, spiritual and social wellbeing of the Nepalese. With the beginning of lockdown, the government decided to shut down all cinema halls, gyms, health clubs and museums, as well as banned the gathering of people for cultural, social or religious activities, including temples, monasteries, churches and mosques. In the case of death, the pandemic has disrupted the normal bereavement processes of families.

Although these measures are taken for the protection of people from COVID-19, it has created fear, anxiety and uncertainty among the Nepalese, which needs to be addressed immediately. The economic recessions have put significant financial pressure on many families, which might increase unhealthy conflict, family breakdown, abuse, depression and domestic violence. The psychological impacts of the COVID-19 lockdown might be a challenge for an indefinite time, hence, it is necessary to emphasize and address coping strategies, mental health interventions and awareness using the available resources. The Nepalese economy which is based on remittance, is mostly affected now. The role of remittance in Nepal is immense on the micro as well as macro-level. This study aims to investigate the possible loss in GDP growth rate for FY 2020 due to possible retardation in remittance inflow (% of GDP) under explosion of the COVID-19. The Government of Nepal should stand on investing in alternatives sectors, for instance in rular agriculture, animal husbandry, fisheries, construction, and so on.

Swift action is needed to provide income, social protection, and employement to the people. This includes key investment climate reforms to promote physical infrastructures and access to finance for the informal sector to shorten the transition to recovery.

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THE DESIRE TO BE DOMINANT: STRUGGLE AND PEACE

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Abstract

Understanding of war and peace process is an all-time people's concern. This article aims to explore the biological, psychological, social aspects of struggle and peace which may help to integrate two different approaches regarding the attainment of peace in real life. Struggle for existence is operating naturally in course of evolution of man from its hunter gatherer days to the modern urban mode of life. This struggle manifests as interspecific competition with different living species and as intraspecific competition within the individuals of same species. Being naturally selected i.e. reproductively successful lineage and domination over another to use resources, is an instinctive desire of man, similar to all other living species. This instinct of competition usually leads to warfare and total war and as the consequence devastating loss may exceed benefits. Then war aim morphs into 'peace conditions'- the minimal conditions under which a state may cease to wage a particular war. Generally peace is a concept of societal friendship and harmony in the absence of hostility and violence. Peace, in social sense, means a lack of conflict (such as war) and freedom from fear of violence between individuals or groups. In this way one can't have experience of peacefulness. Eastern mystics explain peace as an individual experience. It can be experienced practically in no-mind state of consciousness.

Key words: desire, struggle for existence, dominant, competition, war, instinct, peace, no-mind

Introduction

Covid -19 disease first appeared in December 2019 in Wuhan, China and spread worldwide so rapidly that WHO declared it pandemic on 11 March 2020 (*WHO,* 2020*)*. As of 24 September 2020, more than 31.8 million cases have been reported in 188 countries and territories, resulting in more than 976,000 deaths (CSSE, 2020). In major part of the world people got restricted to stay at their home/ shelters and forced to face unprecedented lockdown of whole human activities except for healthcare sector,digital electronic media, web communication system and essential businesses. Slowly and gradually human activities got oriented to digital platform. We are confronting various types of scarcity, crisis and shortages related to medical facilities, food availability and other daily commodities and services. One estimate from an expert at Washington University in St. Louis gave a $300+ billion impact on the world's supply chain (Miller, 2020). Covid-19 pandemic leads to $3.5 trillion in labor income losses worldwide (ILO,2020). The outbreak is a major destabilizing threat to the global economy. Rachel Brown et al. (2020) argue that corona-virus sows civil conflicts. With the usual deterrents to conflict declining around the world, major wars could soon return (Kampf , 2020). Struggle is going on at different level all around the world to secure resources and business supplies. Amid these scenarios, understanding of war and peace process becomes people's concern. This article aims to explore the biological, psychological, social aspects of struggle and peace. It may help to integrate two different approaches regarding the attainment of peace.

Struggle for Existence

There is no exception to the rule that every organic being naturally increases at so high a rate, that if not destroyed, the earth would soon be covered by the progeny of a single pair. Even slow-breeding man has doubled in twenty-five years, and at this rate, in a few thousand years, there would literally not be standing room for his progeny (Darwin, 1859). There is limited food and space available on earth. A struggle for existence inevitably follows from the high rate at which all organic beings tend to increase. This struggle may be mild between two different species, called interspecific competition, that have different physical needs or may be a fatal combat or very acute competition between individuals of a same species, called as intraspecific competition as they need the same things. Competition between two individuals of the same sex also occurs to get access to another sex and for mate selection. Environmental factors like climate change, edaphic factor, temperature, light and natural calamities like drought, flood, landslide, earthquake etc. make this struggle for existence worse. Success in this struggle provides better chance to the species to reproduce and their offspring dominate the world, for example dinosaurs in Jurassic and Cretaceous period of Mesozoic era (230 Million year ago to 70 Mya); mammalian species in Cenozoic era (70 Mya till present) and Man (also called Cro-Magnon Man- *Homo sapiens sapiens*) in recent 35000 years (Verma & Agarwal, 2012). However, in terms of number of individuals, number of species and bio-mass i.e. the mass of living biological organisms in a given area or ecosystem at a given time, Arthropods (category of animals having jointed foot) are most successful lineage on earth today. Biomass of Arthropoda is estimated to be 1.2 Giga ton of Carbon (Gt C) and of human 0.06 Gt C (Yinon et al., 2018).

Struggle with disease causing organisms: Man is facing tough challenges at the front of fight against diseases. Journey of humankinds from hunter-gatherer days to agrarian life and modern

urban days is full of series of epidemics (a widespread occurrence of an infectious disease in a region or community at a particular time) and pandemic diseases (epidemic spread beyond a country's borders) that have killed almost billion of people (Table-1). In long duration of modern civilization combination of genetic, physiological, environmental and behavioral factors have come up with the huge burden of noncommunicable diseases (NCDs). The top ten causes of deaths worldwide in 2016, are ischaemic heart disease, stroke, chronic obstructive pulmonary disease, lower respiratory infections, Alzheimer disease and other dementias, trachea bronchus lung cancer, diabetes mellitus, road injury, diarrhoeal diseases and tuberculosis (Figure-1). They killed 30.7 million people out of the total 56.9 million deaths worldwide in 2016 (WHO GHE, 2018). People have done more in this battle, have achieved many milestones of success, but yet war is on.

Intraspecific struggle: Most acute struggle of man is intraspecific competition. It is inherently interwound with human life and human societies at different levels, in different forms. Competitions occur among family members for the attention and affection of the parent, among students for scholarship, among workers of a business company for higher positions, better salary and opportunities, in politics as an election for an elected office, the intense competition for the small number of top jobs in music and movie-acting, among commercial firms or company to develop new products, services and technologies, which would give consumers greater selection and better products, among countries to provide the best possible business environment for multinational corporations etc. Competition of nations when become worst, it leads to warfare or total war. War is an intense armed conflict between states, governments, societies, or paramilitary groups such as mercenaries, insurgents and militias. It is generally characterized by extreme violence, aggression, destruction, and mortality, using regular or

irregular military forces. Warfare refers to the common activities and characteristics of types of war, or of wars in general. Total war is warfare that is not restricted to purely legitimate military targets, and can result in massive civilian or other non-combatant suffering and casualties (Wikipedia, 2020). According to Conway W. Henderson (2010), "One source claims that 14,500 wars have taken place between 3500 BC and the late 20th century, costing 3.5 billion lives, leaving only 300 years of peace". Another estimate for the total number of people killed in wars throughout all of human history range from 150 million to 1 billion (Hedges, 2003). In War Before Civilization, Lawrence H. Keeley (1996), a professor at the University of Illinois, says approximately 90–95% of known societies throughout history engaged in at least occasional warfare and many fought constantly (Wikipedia, 2020). During the 20th century, war resulted in a dramatic intensification of the pace of social changes, and was a crucial catalyst for the emergence of the Left as a force to be reckoned with. Throughout the course of human history, the average number of people dying from war has fluctuated relatively little, being about 1 to 10 people dying per 100,000. However, major wars over shorter periods have resulted in much higher casualty rates, with 100-200 casualties per 100,000 over a few years (Wikipedia, 2020). The Human Security Report documented a significant decline in the number and severity of armed conflicts since the end of the Cold War in the early 1990s (Mack, 2005). However, the evidence examined in the 2008 edition of the Center for International Development and Conflict Management's "Peace and Conflict" study indicated the overall decline in conflicts had stalled (Hewitt, 2007). Common war aims are the desired territorial, economic, military or other benefits like the accumulation of credibility or reputation, conquest restores prestige, annexation increases power, etc.

Desire to be dominant: An instinct of man

In motivational psychology, instinct generally refers to an automatic, unlearned, stereotyped response to a specific stimulus and hence is close to the English reflex. It connotes urge, impulse, impetus, and desire—what is called drive. A British-born American psychologist William McDougall (1908) popularized a theory of instinct based on the idea that behaviour has inherent purpose, in the sense that it is aimed at the attainment of a goal. Each qualitatively distinct emotional state supports a separate instinct, such as hunger, thirst, fear, aggressiveness, sexual desire, parental affection, and so on. Austrian zoologist Konrad Lorenz (1950) described instinct as a certain type of innate i.e. genetically determined and unlearned, fixed behavior patterns." The reproductive instinct of the fish known as the three-spined stickleback (*Gasterosteus aculeatus*) comprises (for the male) territorial fighting, nest building, mating behaviour, and care of offspring. Territorial fighting consists of threat display, chasing, biting, and other aggressive actions. Evolutionary psychology views the human mind as designed by natural selection. It acknowledges the existence of selection pressures (external agents which affect an organism's ability to survive and reproduce in a given environment) that acted on human Paleolithic ancestors living in small hunter-gatherer societies (Pinker, 1997). According to social science model, the mind is a general-purpose cognitive device shaped virtually in its entirety by cultural influence. Experiments have shown that nature can sometimes be improved upon when it comes to the stimuli evoking or guiding instinctive behavior (Beer, 2009).

Aforementioned facts explicitly suggest that desire to be dominant is instinct behavior of man associated with struggle for existence. It is expressed in the form of competition (inter- and intra-specific struggle) and brings about advantages in natural selection e.g. reproductive success. It can be improved slightly by learning experience.

Competition versus Peace

Karl Marx points out that competition separates individuals from one another (Allen, 1982). Mahatma Gandhi speaks of egoistic competition (Parmeshwari, 2006). For him competition comes from the ego, such qualities glorified and/or left unbridled, can lead to violence, conflict, discord and destructiveness. Competition can cause injury and loss to the organisms involved, and drains valuable resources and energy. In the human species, competition can be expensive on many levels, not only in lives lost to war, physical injuries, and damaged psychological well beings, but also in the health effects from everyday civilian life caused by work stress, long work hours, abusive working relationships, and poor working conditions, that detract from the enjoyment of life. Anti-war movements have existed for every major war in the 20th century prominently (Wikipedia, 2020). Although consequences of competition have been devastating for humankinds, it is being fostered and gratified in social development processes, even in education system. In fact, benefits of victory in competition outweigh its detrimental effects. Main benefit is domination over another. In this sense the phrase ‘healthy competition’ may have been coined. When out of competition war breaks out and loss exceeds the benefits, war aims may eventually morph into “peace conditions”- the minimal conditions under which a state may cease to wage a particular war. Generally peace is a concept of societal friendship and harmony in the absence of hostility and violence. In a social sense, peace is commonly used to mean a lack of conflict (such as war) and freedom from fear of violence between individuals or groups

(Wikipedia, 2020). In this way, one can't have feeling of peacefulness because they include a motivation in his mind that engages him in competition, aggression, anger and so on.

Eastern concept of peace

The East has approached reality of competition and peace in a very different way. For Gandhi, competition comes from the ego, and therefore society must be based on mutual love, cooperation and sacrifice for the well-being of humanity. For him, in a non-violent society, competition does not have a place and this should become realized with more people making the personal choice to have fewer tendencies toward egoism and selfishness. Eastern mystics explain peace as an individual experience. Gautam the Buddha states that peace can be attained once all suffering ends (Wikipedia, 2020). According to Osho, an enlightened mystic of 20th century, mind itself can never be peaceful, silent. The very nature of the mind is to be tense, to be in confusion. Mind can never be clear; it cannot have clarity, because mind is by nature confusion, cloudiness. Clarity is possible without mind, peace is possible without mind, and silence is possible without mind. Thoughts together, millions of thoughts, give you the illusion as if mind exists. The thoughts exist separate from you, they are not one with your nature, they come and go – you remain, you persist…. No thinking …No-mind is peace (Osho, 1975).

Conclusion

Instinct of struggle is the result of natural selection in human being like other living beings. The general meaning of peace that has been defined in dictionaries approach peace in social sense.Eastern approach defines peace as an individual experience. It can be experienced practically in no-mind state of consciousness.

Table 1: History of Epidemic and Pandemic Diseases

S.N.	Pandemic Time	Disease /affected area	Infected/ death
1.	430 B.C.: Athens	Fever- Libya, Ethiopia, Egypt, Sparta	death - 100,000 people
2.	165- 180 A.D.: Antonine Plague	fever, sore throat, diarrhea- Hun, Germany, Roman empire	killed over 5 million people
3.	250 A.D.: Cyprian Plague	diarrhea, vomiting, throat ulcers, fever and gangrenous	killed 5,000 people a day in Rome
4.	541-700 A.D.: Justinian Plague	Egypt, Palestine and the Byzantine Empire, throughout the Mediterranean.	killed about 50 million people
5.	11th Century: Leprosy	Europe	Thousands of leper hospitals across Europe
6.	1350: The Black Death	bubonic plague- Asia, Sicily, throughout Europe	death of one-third of the world population
7.	1492: The Columbian	arrival of the Spanish in the Caribbean- diseases such as	Caribbean 90 percent population dying

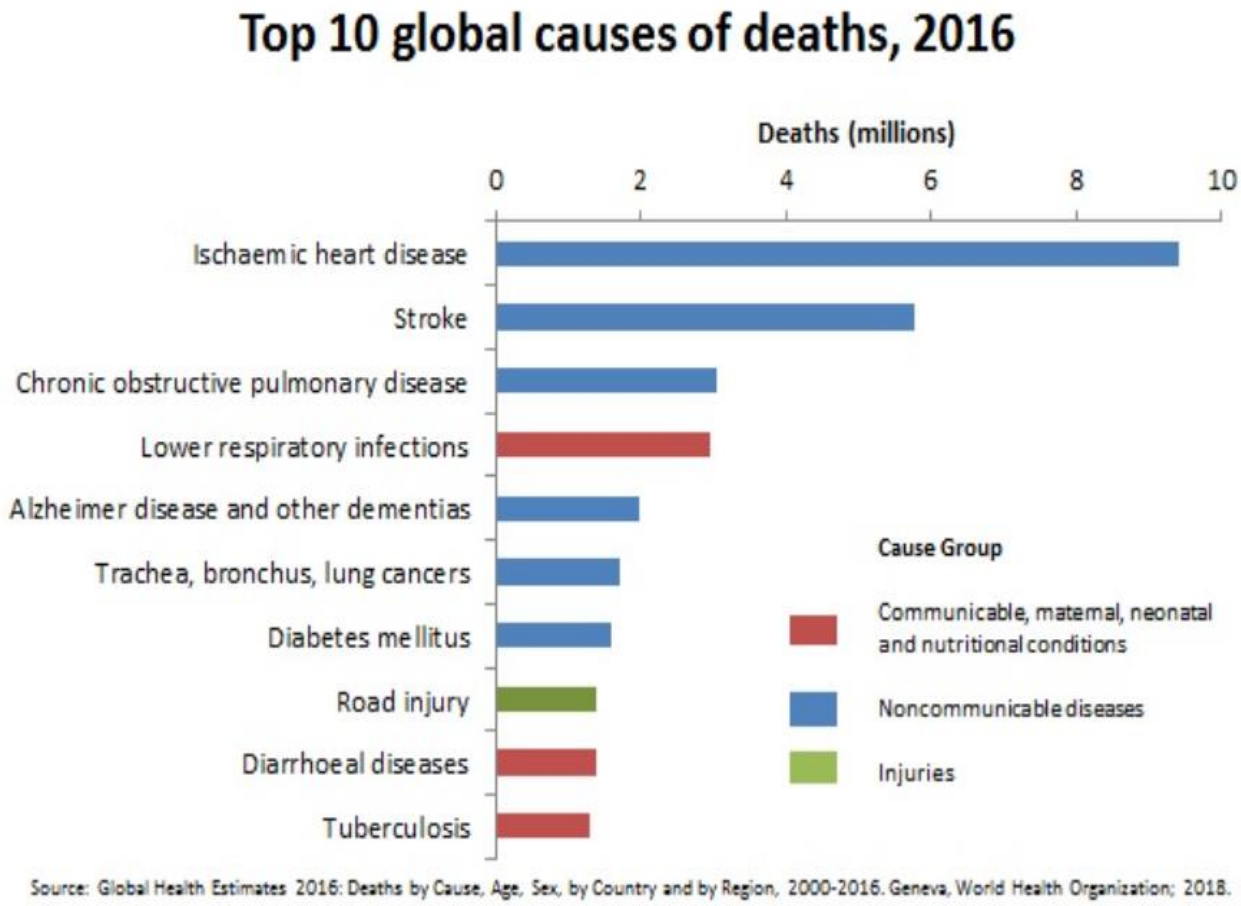
	Exchange	smallpox, measles and bubonic plague	
8.	1545- 1548: Cocoliztli (Aztec)	Viral hemorrhagic fever recent investigation enteric fever infection	Killed 15 million inhabitants
9.	1665: The Great Plague of London	bubonic plague	20 percent of London'population
10.	1817: First Cholera	originated in Russia and spread	2.15 million people

11.	1855: The Third Plague Pandemic	China, India and Hong Kong	15 million Victim
12.	1875: Fiji Measles	Fiji	40000 One-third of
13.	1889- 1890: Russian Flu	Siberia and Kazakhstan, and rest of the world	Killed 1 million people
14.	1918: Spanish Flu	avian-borne flu- around the world	50 million deaths worldwide
15.	1957: Asian flu	1957: started from Hongkong,	1.1 million death
16.	1981: HIV/AIDS	West Africa to Haiti New York	35 million people have
17.	2003: SARS Severe Acute Respiratory Syndrome	believed to have possibly started with bats to cats and then to humans in China, followed by 26 other countries	infecting 8,096 people, with 774 deaths.
18.	2009-2010:H1N1 Swine Flu	Originated in Mexico and spread worldwide	Virus infected as many as 1.4 billion people

19.	2019: COVID-19 The first reported case in China appeared November 17, 2019, in the Hubei Province	On March 11, 2020, the World Health Organization announced that the COVID-19 virus was officially a pandemic spread globally to more than 163 countries	Total case 28.5 million Death 916000 Recovered 19.2 million

Source - https://www.history.com/topics/middle-ages/pandemics-timeline & https://www.livescience.com/worst-epidemics-and-pandemics-in-history.html Access Date September 12, 2020

Figure: 1



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EFFECTS OF MIGRATION AND REMITTANCE INFLOW IN NEPAL

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Abstract

One of Nepal's major exports in foreign market is its labor. Migration and remittance have been critical socio-economic forces in Nepal since early 2000 AD. Remittance inflow from foreign employment is one of the major sources of foreign currency earning for developing countries like Nepal. It has lubricated the economy and increasing trade deficit amount is managed by foreign currency earned through remittance. The objectives of this study are to examine the situation of foreign employment and remittance inflow in Nepal and highlight its positive and negative effects as well as analyze its challenges and suggest remedial measures. Nepal attains a lot of benefits from labor migration and remittance such as improvement in social and economic condition, reduction in poverty and unemployment, increment in government revenue and foreign currency reserve. Remittance generates lots of challenges such as raised household consumption, increased trade deficit, investment in non-productive sectors, shortage of manpower, brain drain, use of informal channel for remittance inflow, exploitation of migrant workers and various social problems. The study suggests the government to devise schemes and craft policies to face challenges and take benefit of remittance and mobilize resources in the development of country.

Key words: Migration, Remittance, Trade deficit, Unemployment, Investment, Development

Introduction

Remittances represent household income from foreign economies arising mainly form the temporary or permanent movement of people to those economies. It includes cash and non-cash items that flow through formal channels, such as wire based device and bank based remittance services, or through informal channels, such as money or goods carried across borders (Shrestha, 2018). Migration and remittance have been critical socio-economic forces in Nepal since early 2000. The trend of foreign employment and sending money from that employment has been one of the major sources of foreign exchange earnings during the last two decades (Siwakoti, 2018). One of the Nepal's major exports in foreign market is its labor. Remittance is a very important capital source for developing countries like Nepal. More than 1500 youths leave the country every day for foreign employment (MoF,2017). During Fiscal Year 2018/19 the remittance inflow amount was NRs.879.3 billion and its ratio to GDP was 25.4 percent (MoF,2020).

Rationale

The remittance earnings that have entered to the economy have lubricated the economy as a whole and it has made the foreign currency payment easier.Till FY 2018/19 total 4792096 workers migrated to different countries for foreign employment and 508823 workers departed abroad only in FY 2018/19 (MoF, 2020).

Remittance and foreign employment are interlinked. As labor migration in foreign countries increases, remittance also increases. Remittance can increase the well-being of receiving households by smoothing consumption and improving living conditions (Budhathoki, 2017). Remittances mainly flow to poor and marginalized families living in rural and remote areas. A household with a remittance surplus will tend to migrate, initially temporarily and later on permanently, to emerging market towns or urban areas. Thus, remittances can potentially contribute to local, regional and national economic development (Dhakal & Maharjan, 2018). Remittance inflow can potentially contribute to economic stability and supporting a current account surplus through growth in foreign exchange earnings. Remittances provide a cushion for economic shocks and have a direct benefit for households. Migrant workers and their families primarily use remittance for consumption purposes. The ratio of remittances to GDP increased from 11 percent in FY 2000/01 to 26.8 percent in FY 2016/17 (Pokhrel, 2018).

Objectives

The general objective of this study is to examine the situation of foreign employment and remittance inflow in Nepal. The specific objectives of this study are as follows:

- To highlight the positive and negative effects of foreign employment and remittance,
- To analyze the challenges and suggest remedial measures of foreign employment and remittance inflow in Nepal.

Materials and Methods

Primary and secondary data have been used to examine the situation of foreign employment and remittance inflow in Nepal. The secondary data have been collected and compiled from various government and non-government publications like publications of Nepal Rastra Bank, Economic

Survey, Department of Customs, Central Bureau of Statistics, Ministry of Labor, Employment and Social Security, Department of Foreign Employment, International Centre for Integrated Mountain Development (ICIMOD) and databases available in different agencies. Various journals, newspapers, unpublished research reports, working papers, dissertations, books and websites were used to collect data from Fiscal Years 2009/10 to FY 2018/19. The national level data have been used to analyze the historical trends and patterns of Nepalese workers migrating overseas and remittance inflow. Various quantitative data have been collected, verified and synthesized to reach conclusion and the collected data have been presented in table.

Descriptive research design has been adopted in this study to assess the opinions of stakeholders. The interviews were conducted to collect qualitative information in Kathmandu Valley, Pokhara, Narayanghat, Hetauda, Sindhuli, Janakpurdham, Biratnagar, Bhadrapur, Dharan and Butwal. However, the study is mainly based on secondary sources of information owing to time and resource constraints. The researcher's personal observation was also used to probe and understand the phenomenon.The key persons involved in foreign employment and remittance were consulted through face-to-face and virtual interviews both. On the basis of Judgmental sampling total 80 persons were consulted including 15 workers ready to move for foreign employment, 15 returned migrants, 15 family members of migrated workers, 10 general people, 5 government officials, 5 experts of migration, 5 politicians, 5 executives of manpower companies and 5 officials of remittance companies.

Situation of Foreign Employment and Remittance in Nepal

Slowdown in economic growth, food scarcity, distorted peace and social order and political instability in Nepal are strong factors for increasing out migration and overseas employment (Shrestha, 2018).Almost 110 countries are open for foreign employment (DoFE, 2015). The major countries are Malaysia, Qatar, Saudi Arabia, UAE, Kuwait, Baharain, Oman, South Korea, Japan, Afganistan, Lebnan, Israel, India, etc.

Only 3605 Nepalese people were working abroad till FY 1993/94 and a small amount was received as remittance inflow. Due to various reasons Nepalese workers tempted to overseas

employment. In the past, when the country's major economic indicators were unfavorable, the remittance sent by Nepalese workers employed abroad played a vital and supporting role in maintaining the economic stability of the country. The penetration of remittance into the rural and remote areas helped in poverty alleviation and improvement of living standard.

Table 1 (Annex-I) reveals the situation of foreign employment and remittance inflow in Nepal from Fiscal Year 2009/10 to Fiscal Year 2018/19. Total number of labor outflow for foreign employment was 294094 in FY 2009/10 (excluding those migrated to India and other countries through informal channel) which was 33.70 percent higher than FY 2008/09. The remittance inflow amount was NRs.231.73 billion and this was 10.51 percent greater in comparison to FY 2008/09. The ratio of remittance to GDP was 19.4 percent and share of remittance inflow to current transfer income was 80.5 percent in FY 2009/10. There was found NRs.313.51 billion negative balance of trade.

Number of foreign employment has been increasing every year and reached to 527814 in FY 2013/14 but it decreased in FY 2014/15 and FY 2015/16 and dropped to 512887 and 418713 respectively. The devastating earthquake of 25th April 2015 negatively influenced out migration. The number of foreign employment increased by 53.53 percent and reached to 610688 in FY 2017/18 but again it decreased by 16.68 percent and dropped to 508828 in FY 2018/19.

Remittance inflow was NRs.253.55 billion in FY 2010/11 which was 9.42 percent higher than FY 2009/10. In fact, remittance inflow had been increasing every year with different rate and reached to NRs.879.3 billion till FY 2018/19. Remittance inflow to GDP ratio was 18.5 percent in FY 2010/11 and continuously increased till FY 2015/16 and it was 29.6 percent. During FY 2016/17 remittance inflow to GDP ratio was 26.8 and it decreased to 25.4 percent in FY 2018/19.

Share of remittance inflow to current transfer income was 81.5 percent in FY 2010/11 which increased gradually and reached to 87.4 percent in FY 2018/19 and this figure was highest during the study period. The balance of foreign trade was NRs.331.84 billion negative in FY 2010/11 and trade deficit increased every year during the study period and reached to NRs.1321.43 billion in FY 2018/19. The data exhibit that Nepal was unable to increase domestic production and increased remittance inflow increasing domestic demand which was ultimately fulfilled by

imported goods. The payment of imported goods was done by foreign currency earned through foreign employment. The remittance inflow has stood as a major pillar for overall balance of payment and external sectors' stability.

After the announcement of lockdown, due to COVID-19 pandemic, Nepal Rastra Bank estimated more than 10 percent reduction in remittance inflow in FY 2019/20 but only 3.3 percent reduction in US Dollar remittance inflow was seen. The reason was that, due to lockdown the migrant workers could not return back and instead of using informal channel *(HUNDI)* they remitted money through formal channel system (Kantipur, August 25, 2020). During the study period the average number of labor outflow for foreign employment was 470881 and the remittance inflow was NRs. 543.49 billion. Average remittance inflow to GDP ratio was 25.04 percent and the share of remittance to current transfer income was 84.57 percent. Similarly, the average trade deficit amount was NRs. 693.00 billion.

Positive Effects of Remittance

The foreign currency earned from export in Nepal is not sufficient to pay one month's import expenses and the import-export ratio with India is 17:1 and it is 10:1 with other countries (Chaulagain, 2019). The balance of foreign trade is negative in Nepal. Remittance has played major role to make favorable current account of balance of payment by providing foreign exchange that can be used for the imports. Inward remittance from foreign employment has helped to increase foreign currency reserve and it is the backbone of Nepalese economy. The positive effect of remittance is numerous for Nepal such as it is the source for household consumption, investment, transforming the structure and dynamics of the overall economy. Remittance has helped to improve the social and economic conditions on nutrition, living condition, shelter, education, health care, poverty reduction, social security, and investment activities of the recipient households (Budhathoki, 2017).

Remittance contributes to the GDP as well as foreign exchange earnings of developing countries to a greater extent. With remittance, an economy can spend more than it produces, imports more than it exports, and invests more than it saves (Connell & Conway, 2000). Inward remittance has increased the demand/consumption so to fulfill the demand either domestic production or import is increased which ultimately increases government revenue. The increased government revenue

can be used for the development of physical infrastructure and utilization of resources. The foreign employment sector has itself created various employment opportunities for Nepalese people. Various business organizations are involved in foreign employment works. A large number of people work in manpower companies, health examination laboratories, orientation and training institutions, remittance companies, insurance and airline companies, travel agencies, etc.The returned migrants may use their skill, technical knowledge, experience and entrepreneurship to set up their working life in Nepal with great confidence and enthusiasm. Such kinds of work generate employment opportunity to their family members and other Nepalese workers too.

Negative Effects of Remittance

Excess dependence on inward remittance from foreign employment is not a good sign for Nepalese economy. For the short period, it may be the solution of poverty, unemployment and foreign currency earning. Around 3.48 million Nepalese working people are contributing in the economic development of host countries (MoF,2017). They did not get employment in Nepal so they moved abroad. In fact, developing country like Nepal should use its workers in the development of industry, commerce and agriculture in own country.To enhance production and productivity of agriculture and ensure high return from it, agriculture sector has to be commercialized and modernized (Bhagat, 2008).

About 79 percent remittances is spent on consumption (CBS, 2018/19). Nepal has trade deficit and the remittance inflow is spent on payment of imported household and luxurious goods. Remittance amount is invested in non-productive sectors like purchase of land, house, gold, silver and non-essential luxurious goods. Increased consumption keeps pressure to import because more goods and remittance inflow is used in the payment of imported goods. Most of remittances are used for daily consumption and households appear primarily to use this income to purchase goods and services in India (Maskay, Steinkamp & Westermann, 2015). Too much dependence of the economy on migration/remittance is not sustainable as this type of income is susceptible to external shocks and international economic conditions.

Most of the Nepalese workers take help of manpower companies to get employment in abroad. Returned migrants opined that some of the manpower companies and their agents exploited

migrant workers and charged excess amount, signed the fake agreement with workers, took too much time to send them abroad, told lie about the nature or type of work, working hour, working condition, other facilities and remuneration amount. Some brokers and agents were found involved in human trafficking and sent people through illegal channels. The female workers were sexually abused and forced to involve in prostitution, kept as slave and faced cruelty from employers and their brokers. If the migrant worker or his family members lodge complaints, the concerned authorities do not take proper legal action. In the case of Nepal, corruption is a complex, and multifaceted phenomenon with multiple causes and on various forms and functions in different contexts (Shah, 2017).

Nepalese workers are mostly unskilled and professionally untrained because of which they do not have reasonable wages on the one side and they have to do highly risky jobs in abroad on the other side (Budhathoki, 2017). Generally, they are given dirty, difficult and dangerous (3D) works. Rapid labor migration has generated social, cultural and family problems like increased divorce rates, decreased birth rate and transmitted infectious disease to family members. A large number of workers migrated for foreign employment so there is paucity of workers in Nepal. Agricultural and industrial sectors face scarcity of workers. Village areas are facing the problems of youth manpower, thereby remaining inactive of agricultural land. Life of rural area is tough so the families having increased remittance tend to migrate from villages to urban areas. This has created various problems in urban area as in water supply, garbage management, local transportation and accommodation, etc.

Challenges of Foreign Employment and Remittance Inflow

Since last two decades remittance inflow from foreign employment has become a major source of foreign currency earning and it has played a pivotal role to reduce the problem of poverty, unemployment, payment of trade deficit amount and socio-economic development of Nepal. There are lots of challenges ahead to be addressed, both at the policy level and at the implementation level simultaneously.

Remittances do not automatically contribute to national development. In the context of Nepal experts opine that government should devise schemes and formulate policies that motivate migrant workers to send money home through formal channels and craft its policies to take advantages of remittance, carrying out effective and efficient public policies to channel them into productive projects. Chiefs of manpower companies claim that the relevant government authorities have largely ignored their potential uses and directing remittances to productive investments. Most of the politicians are of the view that the families of migrant workers should be encouraged and supported to undertake self-employment, creating micro, small and medium-sized enterprises for generating income and employment to eventually support an improvement in the domestic economy.

The Chief Executive Officers of remittance companies opine that number of migrant workers has increased and there has been a gradual growth in remittance which is likely to grow in future. Government should make effort to increase formal remittance flow; financial literacy programs for migrants and their family members; and allowing migrant Nepalese workers to invest in shares of attractive investments and projects of national priority.

The returned migrants have the opinion that in absence of vocational education and employment oriented trainings and further unhealthy industrial relation have remained problems in domestic employment creation. These challenges can be faced by the utilization of active labor forces and empowering them through skill oriented trainings.

During the study, general people and workers, who are ready to move for foreign employment, are consulted for interview regarding use of formal channels for the transfer of remittance from host to home country. Most of them are of the view that unawareness of banking channels, unknown language and easy access of *HUNDI* agents may hinder migrant workers from using formal banking channels for the remittance of money.

Various government officials are of the view that a large number of Nepalese workers have been migrating out through illegal channels creating risk at individual level as well as losing the legal status in the abroad.

Other challenging tasks are that work permit and visa approval procedure are cumbersome, fixing of the minimum remuneration of workers in unscientific and unjustified. Foreign employment is mostly uncompetitive, not dignified and insecure. Most of the family members of migrated employees have such kind of opinions regarding foreign employment since they are also victims of migration. They opine that government should make pre-departure training compulsory for migrant workers which will help to reduce cost of migration, make aware them about legal remittance methods and utilization, brief knowledge about socio-cultural and legal aspects of approaching country.

Due to the difficulties created by COVID-19 pandemic, the entire production, manufacturing and supply chain has been negatively affected. The slowdown in global economy looks to severely impact economic growth, employment, prices and international trade, and has also seriously affected Nepalese economy. Due to the global economic slowdown induced by the COVID-19 pandemic, flow of remittance is expected to decrease due to the loss of opportunities for foreign employment, reduction in salaries and benefits as well as decreased interest in foreign employment.

It is a truth that remittance sent home by migrant workers is a boon to the Nepalese economy. At the same time, it is a challenging task to develop proper mechanism to utilize remittances in productive sectors so as to create domestic employment and investment opportunities at national and local level. So many Nepalese migrant workers use informal channels to send money which results in less resources for the government to make productive investments, encourages tax evasion and adversely affects governance and exchange reserves (Siwakoti, 2018).

Conclusion

The remittance inflow from foreign employment is only the major source of meeting trade deficit. However, excess dependence on inward remittance from foreign employment is not a good sign for Nepalese economy. The major part of remittance inflow is spent on purchase/import of household consumption and luxurious goods.

Most of the Nepalese workers take help of manpower companies to get employment in abroad. Nepalese workers are unskilled and professionally untrained so they are given low remuneration, highly risky and tough works. On average three Nepalese workers die every day in abroad due to accidents at work. Almost 1500 workers proceed abroad every day for foreign employment so there is paucity of youth workers in Nepal. Industrial and agricultural sectors are facing scarcity of workers. On the other side rapid rate of migration has created social, cultural and family problems in Nepalese society. A major portion of remittance is sent by informal channels which has negative effect on foreign currency reserve.

Returned migrants should be encouraged to undertake self-employment by establishing micro, small and medium-sized enterprises. The government should launch financial literacy programs and entrepreneurship development programs for migrants and their family members, encourage them to invest in the projects of national priority and productive sectors, generate skilled labors through vocational education and skill oriented trainings which are needed in domestic as well as international labor market. The government should provide pre-departure training, negotiate labor agreement with major labor importing countries and rescue Nepalese labors that are in trouble and trying to return back Nepal. Cumbersome work permit and visa approval procedure should be made easy, simple and less time consuming.

Subsidy should be provided to migrant workers to motivate them to remit money through formal channels. Cheap, fast and convenient remittance services should be provided in remote and rural areas.The commercial banks should launch attractive deposit schemes as well as special credit schemes with insurance facility to encourage returned migrants. Nepal has been facing heavy trade deficit, and trade gap is widening every year whereas inflow of remittance is going to reduce. Hence, Nepal should focus on generation of hydroelectricity; improve productivity in agriculture and industrial sectors. Inward remittance should be invested in these sectors and returned migrants should be employed to operate such enterprises.Self-employment scheme should be promoted and exemption should be given to returned migrants on customs duty and VAT to start-up new business. Priority should be given to establish export oriented and import substitution industries. Remittance sent by migrant workers is a boon to Nepalese economy but

excess dependence on remittance is vulnerable. Hence, attempt should be made to encourage more inflow of remittance in short-run and invest in other sectors that can gradually alleviate the over dependence of economy on remittance in the long-run.

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(Annex-I)

Table 1: Situation of Foreign Employment and Remittance Inflow in Nepal from FY 2009/10 to FY 2018/19

Description FY(AD) / FY(AD)	2009/10 2066/67	2010/11 2067/68	2011/12 2068/69	2012/13 2069/70	2013/14 2070/71	2014/15 2071/72	2015/16 2072/73	2016/17 2073/74	2017/18 2074/75	2018/19 2075/76	Average
Number of Foreign Employment	294094	354716	384665	453543	527814	512887	418713	642860	610688	508828	470881
Change Percentage	33.7	20.61	8.44	17.91	16.38	-2.83	-18.36	53.53	-5	-16.68	
Remittance Inflow (Rs. in billion)	231.73	253.55	359.55	434.58	543.29	617.28	665.06	695.45	755.06	879.3	543.49
Change Percentage	10.51	9.42	41.81	20.87	25.01	13.62	7.74	4.57	8.57	16.45	
Remittance Inflow to GDP Ratio (Percent)	19.4	18.5	23.5	25.7	27.7	29	29.6	26.8	24.8	25.4	25.04
Share of Remittance Inflow to Current Transfer Income	80.5	81.5	84	86	85.6	86.9	85.5	81.6	86.7	87.4	84.57
Balance of foreign Trade (Rs. in billion)	-313.51	-331.84	-387.41	-479.82	-622.38	-689.37	-703.48	-917.06	-1163.74	-1321.43	-693

Sources:

- Ministry of Labor, Employment and Social Security.
- Department of Foreign Employment.
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GOODS AND SERVICES TAX (GST) IN INDIA: PROBLEMS AND PROSPECTS

Abstract

Goods and Services Tax (GST) is targeted to be a simple, transparent and efficient system of indirect taxation as it has been adopted by over 130 countries around the world. GST is one indirect tax for the whole nation, which will make India one unified common market. GST is a single tax on the supply of goods and services, right from the manufactures to consumers. Credits of input taxes paid at each stage will be available in the subsequent change of value addition, which makes GST essentially a tax only on value addition at each stage. The final consumer will thus bear only the GST charged by the final dealer in the supply chain, with set-off benefits at all the previous stages. Goods and Services Tax (GST) is an indirect tax (or consumption tax) used in India on the supply of goods and services. It is a comprehensive, multistage, destination-based tax: comprehensive because it has subsumed almost all the indirect taxes except a few state taxes. Multi-staged as it is, the GST is imposed at every step in the production process, but is meant to be refunded to all parties in the various stages of production other than the final consumer and as a destination-based tax, it is collected from point of consumption and not point of origin like previous taxes.

Key words: Taxation, Bill, GST, Word Bank, National, Alcoholic, Credit card, Consumption Tax

Introduction

Goods and Services Tax (GST) is a comprehensive tax levy on manufacture, sale and consumption of goods and services at a national level. GST is a tax on goods and services with value addition at each stage having comprehensive and continuous chain of set of benefits from the producers/service providers point up to the retailer's level where only the final consumer should bear the tax. Introduction of a GST to replace the existing multiple tax structure of center and state taxes is not only desirable but imperative in the emerging economic environment. Increasingly, services are used or consumed in production and distribution of goods and vice

versa. Separate taxation of goods and services often requires splitting of transition values into value of goods and services for taxation, which leads to greater complexities, administration and compliances costs. Integration of various taxes into a GST system would make it possible to give full credit for inputs taxes collected. GST, being a destination-based consumption tax-based on VAT principle, would also greatly help in removing economic distortions and will help in development of a common national market.

Meaning of GST

GST stands for Goods and Services Tax. It is a kind of tax imposed on sale, manufacturing and usage of goods and services. Goods and services tax is applied on services and goods at a national level with a purpose of achieving overall economic growth. GST is particularly designed to replace the indirect taxes imposed on goods and services by the Centre and States.

Definition of Goods and Services Tax (GST)

Goods and Services Tax can be defined as kind of Value Added Tax imposed by on various goods and services by different countries. The tax charged on goods and services may differ from country to country. Goods and services tax is imposed to collect revenues for the government. This tax is paid by the consumers of goods and services and collected and forwarded to the government by the business entities.

Historical Background of GST

Goods and Services Tax (GST), a historic tax reform, which is expected to transform the indirect taxation landscape in the country, came into effect on July 1, 2017, though it was planned to be launched much earlier. Speaking on the launching function on the midnight of June 30, 2017 in the General Hall of Parliament in New Delhi, the President, Pranab Mukherjee said the introduction of GST is a moment event for the nation. It was also a moment of satisfaction for him because, as Union Finance Minister, he had introduced the Constitution Amendment Bill on March 22, 2011. The President said, when a change of this magnitude is undertaken, however positive it may be, there are bound to be some teething troubles and difficulties in the initial

stages. Success of such major changes always depends upon their effective implementation. The GST Council and the Central and State Governments should continuously review the design and make improvements, in the same constructive spirit as displayed till now. The Prime Minister, Narendra Modi, said that the day marks a decisive turning point, in determining the future course of the country. He described GST as a fine example of cooperative federalism. He also said that just as Sardar Patel had ensured political integration of the country, GST would ensure economic integration. He hoped that GST would lead to modern tax administration which is simpler, more transparent, and helps to curb corruption, He described GST as "a good and simple tax" which would ultimately benefit people. He quoted a shloka from Rig Veda to describe the spirit of the common goal, common determination, and leading to mutual and shared benefit for the society. The Prime Minister while addressing the joint session of the parliament earlier stated GST will free the common man from tax terrorism and inspector raj. Besides being a transparent and fair system that will end generation of black money and corruption, GST will also promote a new governance culture that will end harassment at the hands of tax officials.

Taxation is a century -old phenomena, the first known system of taxation is in Egyptian kingdom in 3000 BC-2800 BC. Ceaser Augustus, the first Roman Emperor told that the entire world must be taxed. Other European kingdom also supported the taxation. Even in Indian economy, there are huge written evidences or taxation in ancient period in Arthshastra and Manu Smirti well as in literature written in Mughal regime. Any taxation system should not be discriminatory, unfair or unreasonable. It must be based in the principles of equity, just and non-discriminatory. In modern era, taxation becomes a necessary part of fiscal federalism and it is divided into two parts: Direct tax and Indirect tax. Examples of Indirect taxation are goods and services tax and apart from this all those taxes which have been subsumed in the GST like excise duties, customs duties, state Value Added Tax or sales tax, entertainment tax, octroi and entry tax, purchase tax, luxury tax and so on. Finally Goods and Services Tax (GST) amendment Bill passed by Rajyasabha with two-third majorities on 3rd August 2016 and latter on this Bill again passed in Loksabha on 8th August 2016. On 2nd September 2016, the President Mr. Pranab Mukharjee gave assent to the Bill.

Objectives

The general objective of this study is to analyze the problems and prospects of GST in India. But the specific objectives are as follows:

- To recognize the concept of GST,
- To study the features of GST,
- To evaluate issues and problems in implementation of GST,
- To suggest some positive factors about GST.

Significance of the Study

Goods and services tax will now replace the other indirect taxes that exist as on today on different goods and services. GST is anticipated to one of the crucial reforms which will spur the economic growth of the country. When launched, GST will not just make the taxation framework simple but shall also help and increase the compliance, decrease the tax outflow and boost the tax revenue, while making the export market competitive.

In fact, people say that with GST coming into place, the government will be able to set a different roadmap during the upcoming budget session. GST has been a long pending reform which has been in pipeline. This taxation reform hopes to iron out all wrinkles that are present in Indian taxation system. This rich and comprehensive tax policy is forecasted to a significant one, aimed to contribute to the growth of Indian tax system.

Materials and Methods

This study has completely based on secondary data. CBS of India, Economic Times, World Bank, International Monetary Fund (IMF), International Financial Statistics (IFC), MoF (GoI), Indian journals, articles, newspapers, magazines, periodicals, books, various governmental bills, various statistical reports and internet sources.

Considering the objectives of the study, descriptive type research design is adopted to have more accuracy and rigorous analysis of this research study. This study has adopted descriptive as well as analytical method. It is also explanatory in nature.

GST as Need of the Nation

GST has been introduced in the nation from 1st April 2017. The implementation of GST is one of the biggest achievements of the government. As the international trade is increasing in India, implementation of GST had put us forward in preferred global standard which is acceptable all over the world, as more than 130 nations had already introduced it. GST is a transparent, non-discriminating single indirect tax for the entire nation, which will transform India into one unified market. It is a single tax on supply of goods and services right from the manufactured to the consumers. Credits of input taxes paid at each stage will be available in the subsequent state of value addition, which makes GST essentially a tax on value stage at each stage. Thus, the final consumer will bear only the GST charged by the last dealer in the supply chain, with set-off benefits at all previous stages. GST subsumed so many state as well as central indirect taxes into itself. Like a central level, the following indirect taxes are being subsumed:

- Central Excise Duty
- Additional Excise Duty
- Service Tax
- Additional Customs Duty

And at a state level, following taxes are subsumed:

- State Value Added Tax or Sales Tax
- Entertainment Tax
- Octroi and Entry Tax
- Purchase tax
- Luxury Tax
- Taxes on betting, lottery, and gambling

Key Features of GST

1. GST is only applicable on the supply of goods and services.
2. Alcoholic liquor for human consumption is exempted from GST. GST will not applicable to petroleum crude, high speed diesel, motor spirit (petrol), and Natural Gas and Aviation Turbine fuel.

3. Tobacco and Tobacco products will be subject to GST, the center may also impose excise duty on tobacco.
4. An additional tax of up to 1 percent on the supply of goods will be levied by the center in the course of inter-state trade or commerce.
5. Common Accounting Codes
6. Electronic payment process
7. Easy payment through online banking, credit card/debit card, NEFT/RTGS and through cheque/cash at bank.
8. Common set of authorized banks.
9. Use of single channel and single payment instrument.
10. GST would be a destination-based tax as against the present concept of origin-based tax.

Issues and Problems of GST in India

The government may be said to a biggest reform coining the concept of "One Nation, One market, One Tax". However, every new policy and legislation brings with it a certain teething problems and GST is not an exception. There are various issues and problems under GST which are as follows:

a) It is argued by some of the economists, thinkers and politicians that GST is an IT-driven law.

b) In new tax law, old tax as well as the new thought process of trust needs to be imbibed.

c) The inclusion of real estate and alcohol in the GST framework could increase the transparency.

d) The differences in the administrative capabilities of different state's revenue agencies may result in a huge bottleneck in the implementation of GST reform.

e) If more indirect taxes are collected to raise resources and their share in GDP rises, prices would rise and stagflationary conditions would be strengthened.

f) Manipulation of software and documents is normal in India. Fake bills could be made, further complexity is used to generate black incomes and given the complexity of GST, this process will continue.

g) Gold jewelry will attract 3% goods and services tax (GST). Though it is higher than the currently applicable taxes.

h) Every taxpayer has to maintain at their place of business nearly 7 types of accounts. It may become a heavy burden on the small businessmen to maintain such heavy information.

Prospects of GST in India

In totality, the major prospects of GST are:

a) GST will check tax frauds and tax evasion and will bring more businesses into the formal economy.

b) GST will integrate the existing line of taxes like central excise, service tax, sales tax and VAT into one i.e., GST. This will help in avoiding multiple taxes being levied on products and services.

c) GST will prevent cascading of taxes as input tax credit will be available across goods and services at every stage of supply.

d) GST will help in removing economic distortions, promote export and bring about development of a common national market.

e) Under GST regime, the process will be simple and articulate with lesser scope for errors.

f) Taxation under GST would reduce Litigation on account of clarity regarding the jurisdiction of taxation as against the present structure where there still exists an

uncertainty regarding jurisdiction of taxation centre and states in few cases like software, right to use of goods and so on.

g) Presently on account of multiplicity of taxes and thereby cascading effects, lack of integrated network, the administration of indirect taxes mammoth task to the compliance and administration costs.

Thus, GST would be a game changer in a positive way and proves beneficial to the country as a whole. This transformable reform will reenergize the sagging wheels of our economic growth.

Conclusion

Goods and Services Tax (GST) is multi-stage tax for which the tax burden is intended to fall on the final consumer. GST would greatly help in removing economic distortions and will help in development of a common national market. GST is going to replace all the indirect taxes. It is concluded that GST would significantly bring down product prices. The example shows that GST system is simple and transparent. The GST rate of 20 percent would benefit the industry and also consumers. GST will promote more exports, create more employment opportunities and boost growth. It will bring more transparency and more GDP growth and more revenue collection. Overall GST is a "Growth of Engine of Nation."

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THE EFFECT OF CREDIT RISK MANAGEMENT ON FINANCIAL PERFORMANCE OF COMMERCIAL BANKS

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Abstract

The main objective of this research is to analyze the effect of credit risk management on financial performance of commercial banks. The research considers two government banks, two joint-venture banks and one private bank with five variables during the period FY 2014/15 to 2018/19. The research revealed that the credit risk management affects on financial performance of the commercial banks as measured interest income to Total loan & advances ratio, Total loans &advances to total deposits ratio, Capital adequacy ratio, Non performing assets (NPAs) to total loans and Return on assets (RoA). Banks should establish adequate credit risk management policies by improving strict credit estimation before granting loans to customers and also designing an effective credit risk management system. They also need to establish a suitable credit risk environment, operating under a sound credit granting process, maintaining an appropriate credit administration that involves monitoring, processing as well as enough controls over credit risk.

Key words: Credit risk, Financial performance, Interest income, Total loan, Total deposits, Capital adequacy, Commercial banks.

Introduction

The sound financial system has important role in the country. The banks play vital role to make sound financial system of the country. Banks are exposed to different types of risks, which affect the performance and activity of these banks. The primary goal of the banking management is to maximize the shareholders' wealth, so in achieving this goal bank' managers should manage properly all these risks to minimize the risks involved in the cash flows of banks and maximize the market value of the shares. The cash flows with high risk are discounted at higher rate and

discounting cash flows at higher rate results in the low market value of shares (Paudel et al., 2018).

Credit risk is one of the most significant risks that banks face, granting credit is one of the main sources of income in commercial banks. Therefore the management of the risk related to that credit affects the profitability of the banks, (Li & Zou, 2014).

The main objective of this research is to analyze the indicators of the credit risk management and financial performance of commercial banks in Nepal. It is related with interest income to Total loan and advances ratio, Total loans & advances to total deposits ratio, Capital adequacy ratio, Non-performing assets (NPAs) to total loans and Return on assets (RoA). The importance of credit risk management in banks is due to its ability in affecting the banks, financial performance, existence and growth.

Literature Review

Credit risk is the risk that a borrower defaults and does not honor its obligation to service debt. It can occur when counterpart is unable to pay or cannot pay on time, (Gastel & Baesens, 2008, p-24).

Credit risk is one of significant risks of banks by the nature of their activities. Through effective management of credit risk exposure banks not only support the viability and profitability of their own business but also contribute to systematic stability and to an efficient allocation of capital of the economy.

Lapteva (2009) explained effective management of credit risk is inextricable linked to the development of banking technology, which will enable to increase the speed of decision making and simultaneously reduce the cost of controlling credit risk. This requires a complete base of partners and contractors.

Arora and Singh (2014) found the area of problem and obstacles in credit risk management of business loans in Indian public sector banks. Major findings of the paper can be summarized as the bank has well-designed credit risk policy and strategy.

Poudel (2012) explored various parameters pertinent to credit risk management as they affect bank's financial performance. The study revealed that all these parameters had an inverse impact on the bank's financial performance however, the default rate is the biggest predictor of bank's financial performance.Commercial banks practice a credit risk management through loan appraisal, asking for collateral, and checking the credit history of the borrowers.

Duaka (2015) asserted that bank profitability is inversely influenced by the levels of loans and advances, non performing loans and deposits there by exposing them to great risk of illiquidity and distress.

Gizaw, Selvaraj and Kebede (2015) examined the impact of credit risk on profitability of commercial banks. It emphasized on enhancing credit risk management to maintain the prevailing profitability of commercial banks.

Yin, Xie and Xu (2016) introduced DEA (data envelopment analysis) to analyze credit risk management efficiency. It has concluded the non-state owned commercial banks credit risk management efficiency in Chinese's banking industry is higher than the state owned one.

Nawaz and Munis (2012) suggested that the credit risk management effected on the banks profitability and they recommended that management should be cautious in setting up a credit policy that might not negatively affects profitability.

Ogboi and Unuafe (2013) concluded that banks' financial performance had been affected by sound credit risk management and capital adequacy.

Li and Zou (2014) found that the indicator of non-performing loans had positive impact on banks profitability as measured by return on equity (RoE) and return on assets (RoA).

Objectives of the Study

This research aims to investigate the effect of credit risk management on financial performance of commercial banks.

Materials and Methods

Data from annual reports of the commercial banks in Nepal have been used to analyze for the study during the year from FY 2014/15-2018/19. The study has taken a descriptive research design to estimate the effect of credit risk management indicators.

Data Analysis and Discussion

This research applies the descriptive and financial ratio analysis approaches in determining the effect of credit risk management on bank's financial performance during the time period of FY 2014/15-2018/19.

Table: 1

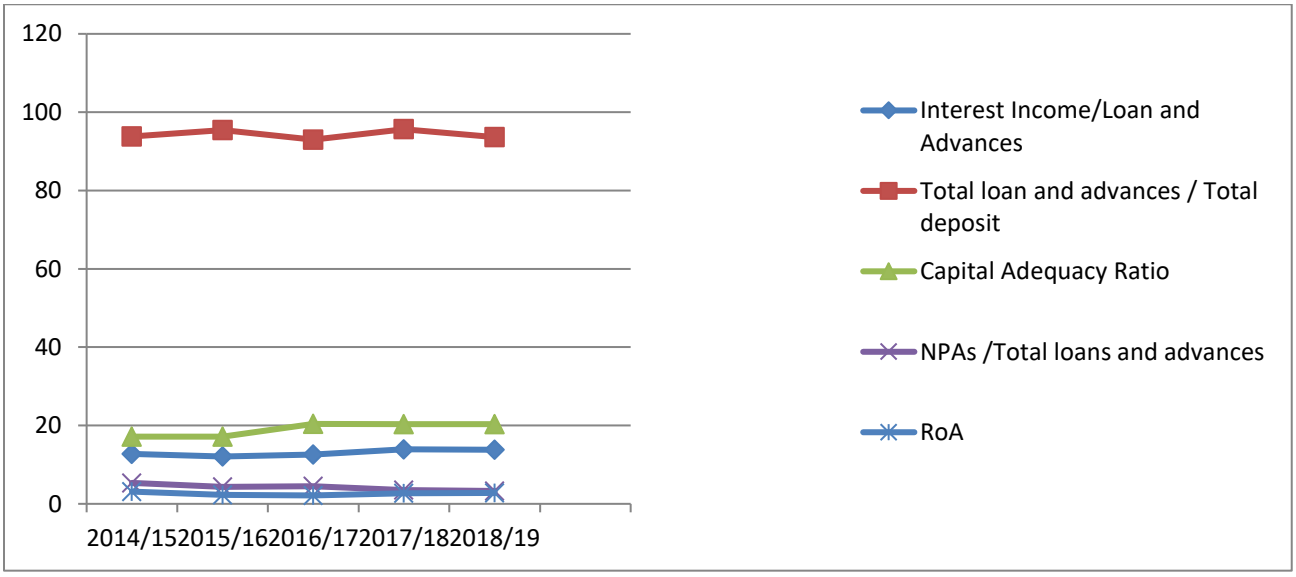
Analysis of Financial Variables of Agriculture Development Bank Limited

Fiscal Year / Financial Ratio (In %)	2014/15	2015/16	2016/17	2017/18	2018/19	Average

Interest Income/Loan and Advances	12.72	12.09	12.55	13.93	13.85	13.03
Total loan and advances / Total deposit	93.77	95.46	92.90	95.64	93.62	94.28
Capital Adequacy Ratio	17.16	17.18	20.41	20.33	20.37	19.09
NPAs /Total loan & advances	5.35	4.36	4.50	3.50	3.29	4.32
RoA	3.12	2.32	2.15	2.71	2.77	2.67

Source: Annual Report of ADBL for FY 2014/15 to 2018/19

Figure.1: Analysis of Financial Variables of ADBL



Source: Table.1

The table and figure presents some descriptive statistics for the five variables used in this study which shows the effect of credit risk management on financial performance of commercial banks. Interest income to total loan and advances of ADBL has incurred upward and downward for FY 2014/15 to 2018/19.The average internet income to total loan incurs 13.03 percentages. The average total loan and advances, capital adequacy, non-performing loan to total and return

on assets are 94.28, 19.09, 4.32, 2.67 respectively. It shows the bank's average total loan and advances is high that creates credit risk if the bank is not strict in its credit policy. The average NPAs to total loan is high it has shown the bank has not got success in collection of loan. The average RoA of this bank is 2.67 percentages; it shows there is no effect of the high NPAs.

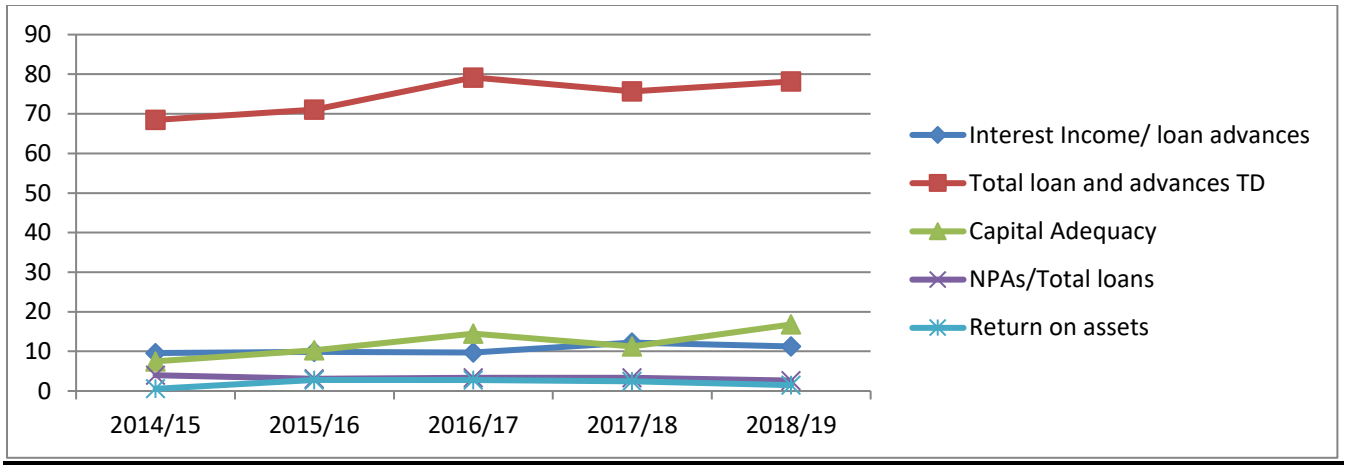
Table: 2

Analysis of Financial Variables of Nepal Bank Limited

Fiscal Year Financial Ratio (in %)	2014/15	2015/16	2016/17	2017/18	2018/19	Average
a) Interest Income/ loan advances	9.59	9.86	9.73	12.22	11.23	10.53
b) Total loan and advances / TD	68.45	71.05	79.17	75.68	78.14	74.5
c) Capital Adequacy	7.49	10.20	14.47	11.27	16.80	12.05
d) NPAs/Total loans	3.98	3.11	3.32	3.37	2.64	3.24
e) Return on assets	0.55	2.79	2.78	2.41	1.51	2.01

Source: Annual Report of Nepal Bank Limited for FY 2014/15 to 2018/19

Figure.2: Analysis of Financial Variables of Nepal Bank Limited



Source: Table.2

Nepal Bank Limited is first and oldest and government owned bank. Previously, the bank had poor credit policy but currently it focuses on credit policy and rules and regulation of NRB. The average interest income to loan and Advances, Total loan and advances to total deposits, Capital adequacy and RoA has 10.33, 74.5, 12.05, 3.28, and 2.01 respectively. The bank has followed NRB guideline that shows total loan & advances is less than eighty percentages. The average capital adequacy ratio is 12.05 percentage; the bank has kept high percentages than average percentages. NPAs of this bank is more in beginning period but they reduce ending period, if in it shows the bank implements strict credit policy. RoA of this bank shows less percentage in beginning period but in ending period they get high percentages so there is satisfactory credit loan policy.

Table: 3

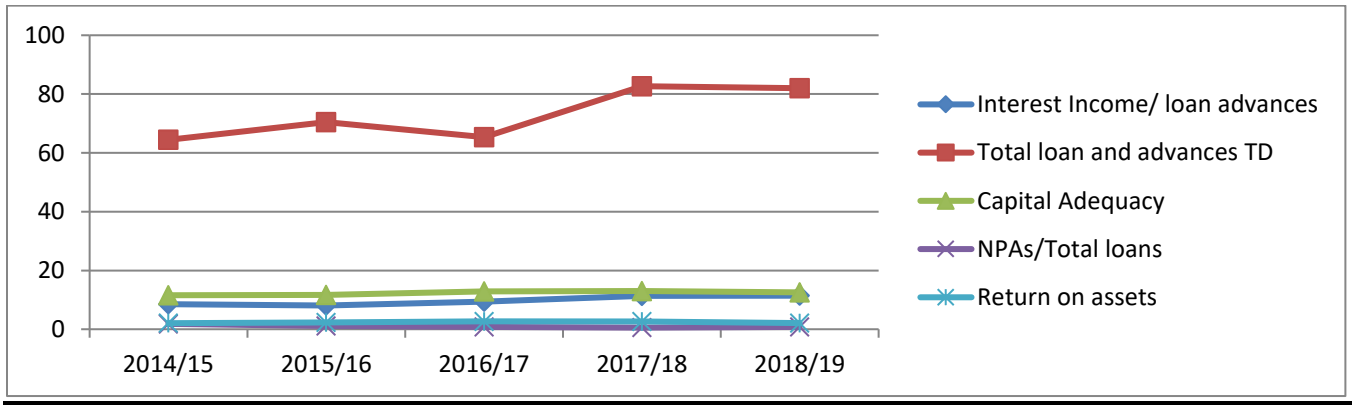
Analysis of Financial Variables of NABIL

Fiscal Year Financial Ratio (in %)	2014/15	2015/16	2016/17	2017/18	2018/19	Average
a) Interest Income/ loan advances	8.50	8.08	9.44	11.36	11.41	9.76
b) Total loan and advances / TD	64.43	70.49	65.38	82.66	81.96	73.07
c) Capital Adequacy	11.57	11.73	12.90	13.00	12.50	12.34

d) NPAs/Total loans	1.82	1.14	0.80	0.55	0.74	1.01
e) Return on assets	2.06	2.32	2.69	2.61	2.11	2.36

Source: Annual Report of NABIL for FY 2014/15 to 2018/19

Figure.3: Analysis of Financial Variables of NABIL



Source: Table.3

The first joint venture of Nepal is NABIL bank. The bank has average interest income to loan and advances, total loan and advances to total deposits, capital adequacy, NPAs to total loan and ROA has 9.76, 73.07, 12.34, 1.01, and 2.36 respectively. The bank has sound credit loan policy. It has maintained all variables as per guidelines of credit policy of NRB. The bank has maintained NPAs at early period of the study. RoA of this bank has shown increasing trends so it has no effect of credit risk management.

Table: 4

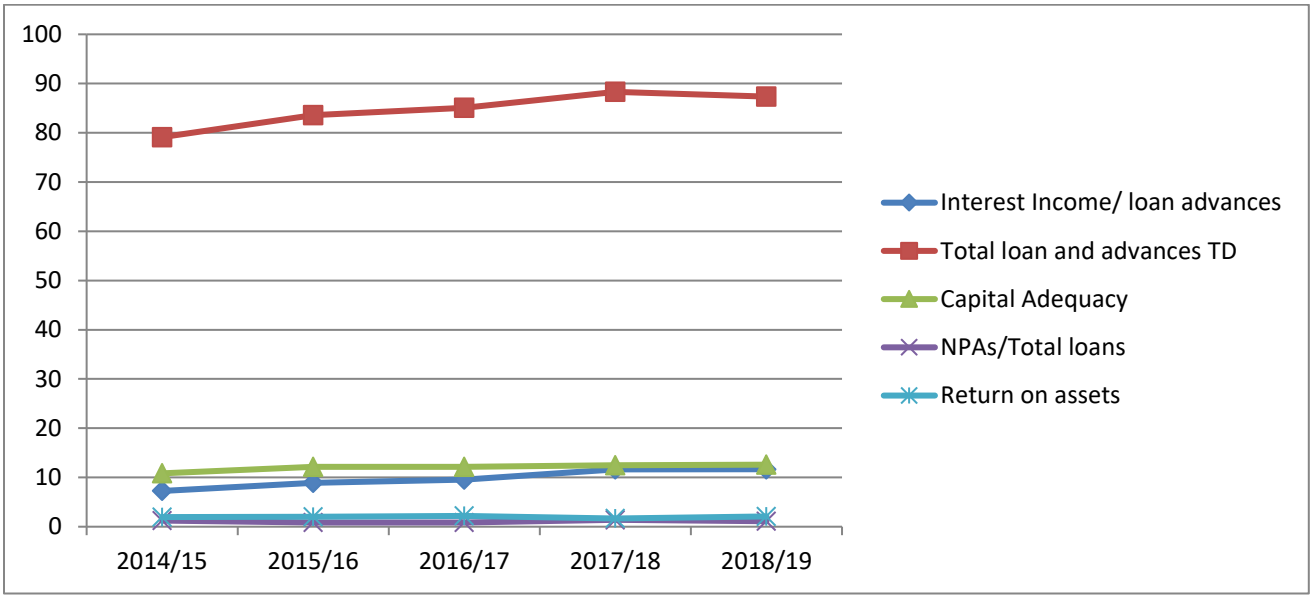
Analysis of Financial Variables of Himalayan Bank Limited

Fiscal Year Financial Ratio (In %)	2014/15	2015/16	2016/17	2017/18	2018/19	Average
a) Interest Income/ loan advances	7.26	8.94	9.52	11.64	11.67	9.81
b) Total loan and advances TD	79.12	83.59	85.10	88.31	87.37	92.82

c) Capital Adequacy	10.84	12.15	12.15	12.46	12.60	12.04
d) NPA/Total loans	1.23	0.85	0.85	1.40	1.12	1.09
e) Return on assets	1.94	2.03	2.19	1.67	2.21	2.01

Source: Annual Report of Himalayan Bank Limited for FY 2014/15 to 2018/19

Figure.4: Analysis of Financial Variables of Himalayan Bank Limited



Source: Table.4

The interest incomes to total loans are in increasing trends except the FY 2018/19. Average Capital Adequacy has maintained the bank which have incurred above 12 percentages except the beginning period of the study. NPAs to total loan and ROA are upward and downward position, the bank should focus on credit policy. It shows the bank has satisfactory position of credit policy.

Table: 5

Analysis of Financial Variables of Everest Bank Limited

Fiscal Year Financial Ratio (In %)	2014/15	2015/16	2016/17	2017/18	2018/19	Average
a) Interest Income/ loan advances	8.76	6.86	8.13	9.89	10.66	8.86
b) Total loan and advances TD	66.63	75.14	84.05	81.86	87.01	78.94
c) Capital Adequacy	13.33	12.66	14.54	14.20	13.74	13.69
d) NPA/Total loans	0.66	0.38	0.25	0.20	0.16	0.33
e) Return on assets	1.85	1.59	1.83	1.97	1.94	1.84

Source: Annual Report of Everest Bank Limited for FY 2014/15 to 2018/19

Everest Bank is joint venture bank with Punjab national bank of India. The interest incomes to total loans are increasing trends except FY 2015/16. The average total loan and advances to total deposit has 78.94 which are lower the guidelines of NRB. NPAs to total loan of this bank has incurred less than 1 percent which is shown the bank has sound credit policy and it has managed the all types of credit risk through high skilled credit management department. RoA of this bank is in satisfactory position which has incurred more than average RoA expect FY 2015/16.

Conclusion and Recommendations

The objective of the study is to analyze the effect to credit risk management as it plays an important role in the financial performance of banks. The result of data showed that credit risk management is an important role of banks financial performance, thus success of bank performance depends on risk management. The study results showed NABIL, EBL and HBL have good credit policy and to maintain the credit risk management. The average capital adequacy ratio of these banks more than 12 percent and NPA should have maintained than government owned bank ADB and NBL. In Nepal all commercial banks are following rules, regulations and guidelines of Central Bank (NRB).

The study also justifies that credit risk iteration as well as credit risk management practices have been well implemented in Nepali banks as discovered from the mean score of the responses. Thus, it can be concluded that credit risk management, such as complying with credit risk policy, defines roles and responsibility for the responsible employees of the credit risk department. Similarly, banks should provide the employees and make that fully follow the credit risk mitigation measures so as to avoid the risk of having NPA/NPL and loan loss provision. The process of making loan or section of loan should be carefully monitored and analyzed to reduce credit risk and improve loan repayment.

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PREVALENCE OF IRON DEFICIENCY ANEMIAAND BETA THALASSEMIA TRAITIN BLOOD DONORS WITH MICROCYTOSIS

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Abstract

The two most common causes of microcytic anemia are iron deficiency anemia and beta-thalassemia trait.Blood is needed to be transfused in some life-threatening situation. The purpose of our present study was to find out the prevalence of Iron deficiency anemia and Beta-thalassemia trait in blood donors with microcytosis helpful to transfuse safe blood. Initially 925 donor samples were evaluated on cell-counter of which 763(671 males, 92 females) were accepted donors and 162(17 males, 145 females) were deferred donors. Of these, 50 were found to be microcytic (<80fL). These were subjected to Ferritin and HbA2determination. The prevalence of microcytosis was 5.4 percent (50/925). Among the microcytic donors, 52 percent (n=26; Ferritin<15ng/ml) were IDA, 36 percent (n=18; HbA2>3.5%) were BTT, 8 percent (n=4) had both, and 4 percent (n=2) diagnosis could not be confirmed .

Key words: Iron deficiency anaemia, Beta-thalassemia trait, Microcytosis, Hemoglobin, Plasma ferritin

Introduction

The two most common causes of microcytic anemia are iron deficiency anemia (IDA) and beta-thalassemia trait (BTT) (Oski et al., 1993, pp.190-193.). A traditional approach followed by most general practitioners and blood bank physicians is a trial of iron treatment whenever anemia and/ or microcytosis are encountered. (Sukumaran, 1975, pp.225-261). However populations where Thalassemias are common, like in India, this approach leads to unnecessary iron therapy / iron overload (Weatherall et al.,2001, pp.279-303) and failure to provide genetic diagnosis /

counseling in subjects with BTT. Therefore it is important to diagnose these two most common causes of microcytosis in blood donors.

Limited data was available on prevalence of microcytosis and its causes in blood donors. Therefore in this study microcytosis was evaluated in blood donors, defined as MCV less than 80 fl. The study hypothesized that there is a higher probability of finding IDA and BTT in microcytic samples. Hence Plasma Ferritin and HbA2 determination was done on all microcytic samples.

Objectives of the Study

The general objective of this research study is to analyze prevalence of iron deficiency anemia and beta thalassemia traitin blood donors with microcytosis. But the specific objectives are as follows:

- To determine prevalence of microcytosis in blood donors.
- To establish prevalence of Iron deficiency anaemia and beta-thallassemia trait in blood donors with microcytosis.

Significance of the Study

Prevalence of IDA and BTT in blood donors with microcytosis is very essentially find-out because, the blood transfusion has important role in modern practice of medicine and without it many surgical procedures, cardiac surgery, treatment of various hematological disorders are impossible. Due to limited resources of blood and increased demand there is always significant need of rational use of blood and its components.

Materials and Methods

Donor Selection: All accepted and deferred (due to low hemoglobin) voluntary donors visiting at a stand alone blood bank (either in-house or at the outdoor blood drives) were included in the study. The donors were selected randomly during the period between November 2012 and May 2013. The cut off hemoglobin for accepting or deferring a donor was 12.5 gm% as per national guidelines (Krejcie,1970, pp.607-610). Hemoglobin (Hb) was measured using the finger-prick method with Hemocue Hb 201+ (HemoCue AB, Angelholm, Sweden) at the time of donation.

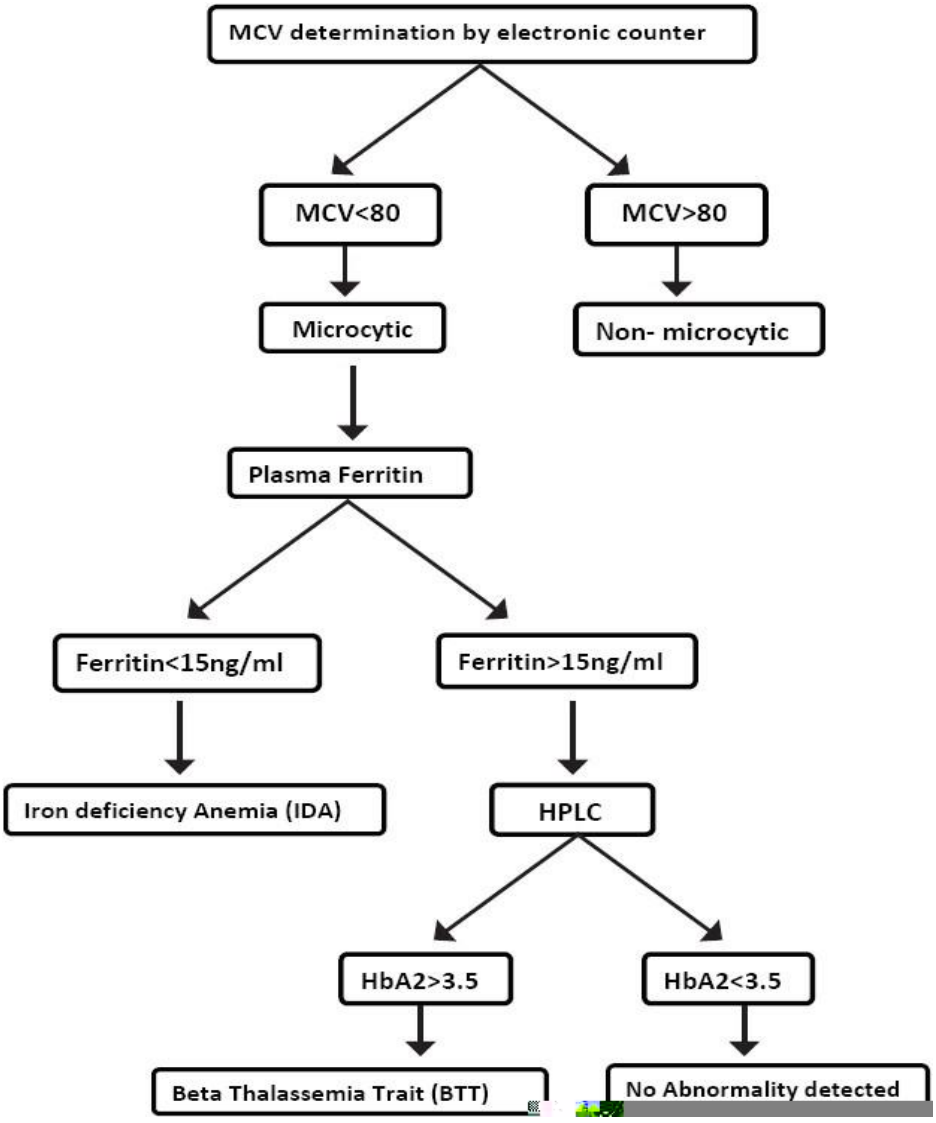
Sample Size and Collection: The sample size was determined based on the Krejcie and Morgan (Pearson,1973, pp.351-353) criteria, for determining the sample size at 95 and 99 percent confidence levels. In last few years, every year around ten thousand blood donors between 18 and 60 years have been volunteering at the blood bank for blood donation. Krejcie and Morgan in their criteria of sample selection have suggested a minimum sample of 370 against 10,000 population at 95 percent confidence level ($p < 0.05$) and 4950 at 99 percent confidence level ($p < 0.01$) for the same target population. Initially 925 test samples were investigated.

Routinely two samples were collected from all blood donors in vacuumized tubes after 350 ml of whole blood donation - one clotted sample for the Transfusion Microbiology Laboratory (TML) tests and another sample in an EDTA (Ethylene Diamine Tetraacetic Acid) tube for the Immunohematology Laboratory (IH). The IH laboratory (EDTA) tube was used for this study. In case of deferred donors the EDTA sample was drawn after obtaining the donors' oral consent. Since recalling the donor for a second clotted blood sample was difficult and costly, plasma ferritin assay and High Performance Liquid Chromatography (HPLC) were done on the original blood sample when microcytosis was detected in either the accepted or deferred donor.

Hemogram: A complete hemogram was obtained for all samples using SYSMEX KX21 counter (Sysmex Corporation, Kobe, Japan). Diagnosis of microcytosis was made by measuring MCV (less than 80 fl). (Nathan, 2003; Gulati, 2002, pp.336-342). The electronic cell counter was calibrated twice during the course of study. Samples were run on an electronic counter either on the day of collection (day 0) or the day after (day 1) to avoid any changes in MCV that may occur on keeping the samples for long in EDTA. The degree of change in MCV observed from day 2 onward may be considered less than desirable, particularly when the results are borderline normal or abnormal (Killip, 2008,p.914).

Determination of Plasma Ferritin and Hemoglobin Types: Plasma ferritin values were obtained using the chemiluminence method on automated equipment (Vitros Immunodiagnostics, Ortho Clinical Diagnostics, USA). The assays were validated using appropriate controls and calibrators for each lot used. According to the manufacturer's instructions, the plasma samples showed 15 percent negative bias for ferritin when compared to the matched serum samples. Therefore the plasma ferritin values were multiplied by a factor of 1.15 to remove this bias. HbA2 quantitation was done by HPLC on an automated system (Bio Rad Variant II, D-10, Bio-Rad Laboratories, CA). Diagnosis of IDA was made based on plasma ferritin values lower than 15 ng ml^{-1}. Diagnosis of BTT was made based on HbA2 levels more than 3.5 percent.

Statistical Evaluation: The prevalence data of IDA and BTT in microcytic samples were compared using the Chi- square test. The data was analyzed using SPSS 12.0.



Ethical Issues: The results of a complete hemogram, plasma ferritin, and HPLC were communicated to all blood donors for whom these results were abnormal and all deferred donors from whom samples were obtained. Donors diagnosed with IDA or BTT were recalled and counseled. The ethical clearance for this study was obtained from the Institutional Ethical Committee. There was no potential conflict of interest relevant to this study.

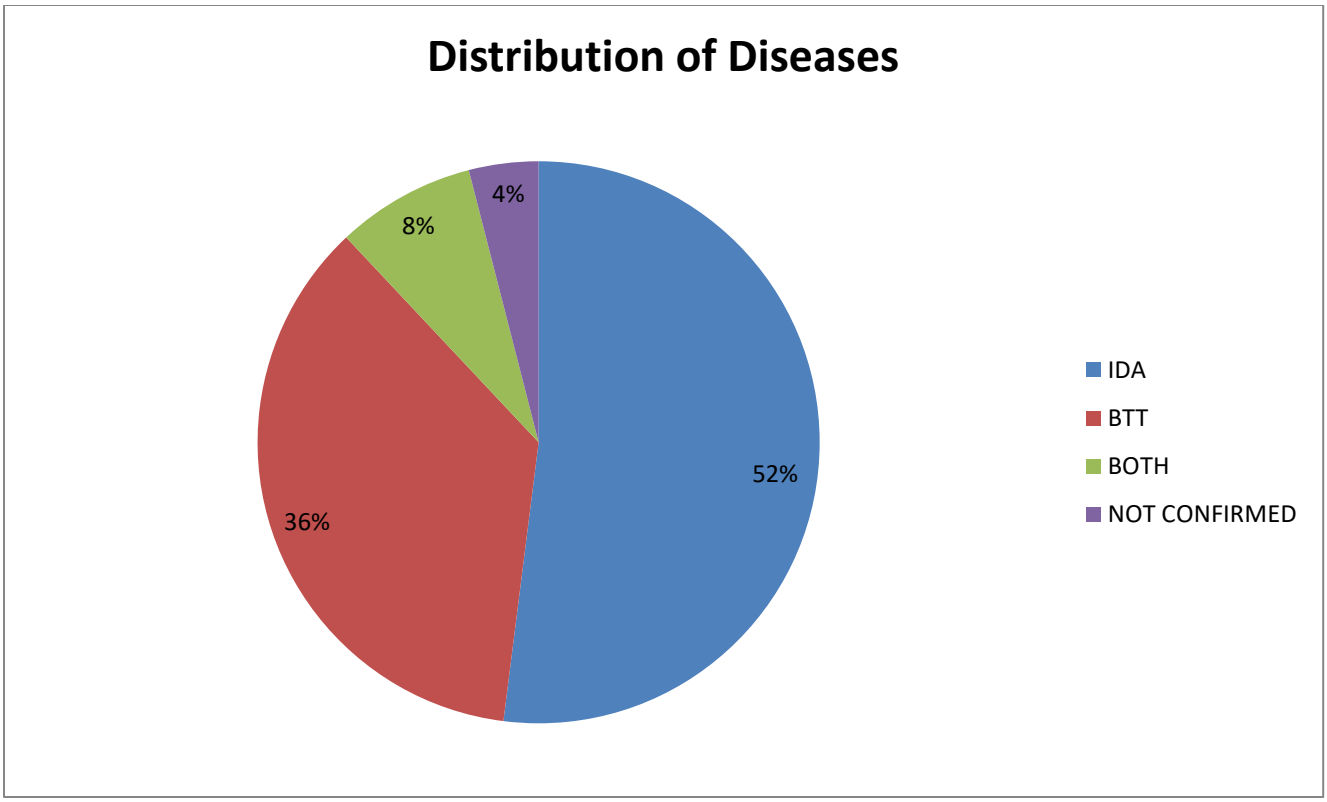


Figure 1: Distribution of IDA, BTT, Both IDA and BTT and not confirmed.

Discussion

The study investigates microcytosis in blood donors. Microcytosis is the most common red cell change observed during a routine blood count and is an important indicator of anemia. Anemia, to date, remains the most important cause of deferral in blood donors, and therefore, investigating microcytosis in donors, not only helps in identifying the cause of anemia but also provides right treatment and counseling to the donor. This goes a long way in maintaining a dedicated pool of donors.

In several studies, red blood cells are described as being microcytic when the mean corpuscular volume is less than 80 fl. (Nathan at el., 2003, pp.336-342) MCV measurement by cell counter is direct, rapid, inexpensive, and automated. The prevalence of microcytosis in donors in this study was 5.4 percent. This was slightly lower than that found in the high school students of Hong Kong (8.3%), in a study by Yu-Lung Lau et al. (1997), who also followed the same criteria for MCV (< 80 fl) (Beissner,1986,pp.83-95). This difference could be because of the different sets of population and different mean age of subjects in this study.

Plasma ferritin has been used to diagnose IDA because the ferritin level is considered to be the single, most powerful test for its diagnosis (Massey et al., 1992, pp.549-566) Ferritin is independent of external contamination of blood samples, diurnal variation, and concurrent iron therapy. Eventhough plasma ferritin is an acute phase reactant that can be elevated in various inflammatory conditions, as this study group comprised of healthy donor population, the probability of inflammation was negligible. Chemiluminescence for Ferritin assay was preferred over other methods because of its simplicity and sensitivity. (Clark, 2008, pp.128-141) For diagnosis of IDA, plasma ferritin threshold of 15 ng ml^{-1} was used in this study, as suggested by Clark (2008) (Ou, 2001, pp.187-194).

High Performance Liquid Chromatography was used for quantization of HbA2 because of the simplicity of sample preparation, superior resolution, and accuracy, combined with complete automation of the method. (Clarke, 2000, pp. 1284-1290) Diagnosis of BTT was based on levels of HbA2 greater than 3.5 percent (Madan, 1996, pp.1021-1032). Reduction of HbA2 because of coincident iron deficiency did not preclude detection of BTT (Mittal, 2006, pp.641-646).

The present study illustrates two important aspects; one, the prevalence of IDA and BTT was high among blood donors and second, the probability of both IDA and BTT in microcytic samples was significantly higher as compared to non-microcytic samples. Routinely plasma ferritin could be done only in microcytic samples. Those with ferritin levels less than 15 ng/ml are diagnosed as IDA. HPLC is performed only for non-IDA samples, with ferritin levels higher than 15 ng/ml, as BTT is more likely in samples with higher ferritin levels. The same recommendation has been put forward by Loria (1978) and Hershko (1979). (Loria, 1978, pp.1127-1131).

The authors did not find any algorithm for diagnosing IDA and BTT in blood donors in India. However, there were two published algorithms from other countries in context to IDA and BTT. A Canadian study by Kiss et al. (2000) (Lau, 1997, p.301) has also used 80 fl as the initial screening tool in patients. Their algorithm demonstrates that a high index of suspicion based on ethnic background and low MCV is a relevant approach to the effective investigation of the thalassemia trait. The present study done on blood donors suggests an algorithm that increases the probability of finding both BTT and IDA. However, this study does not consider the ethnic background of donors. An American study by Pearson et al. (1973) (Nathan, 2003) used 79 fl as the initial screening tool. Their algorithm suggests doing HbA2 electrophoresis on all microcytic samples and serum iron for all non-BTT samples. The algorithm in the present study recommends doing plasma ferritin and HPLC for IDA and BTT diagnosis, respectively, which are newer and more accurate tests available, as compared to serum iron and electrophoresis used by Pearson et al. The order of the tests performed has been reversed in the present study; HPLC is performed only for non-IDA samples, with ferritin levels higher than 15 ng/ml, as BTT is more likely in samples with higher ferritin levels.

By employing this algorithm, a substantial number of IDA and BTT could be diagnosed while keeping the number of Ferritin tests small and the number of HPLC tests even smaller, thus making it cost efficient.

Conclusion

Prevalence of IDA and BTT in blood donors with microcytosis is very essentially find-out because, the blood transfusion has important role in modern practice of medicine and without it many surgical procedure, cardiac surgery, treatment of various hematological disorders are impossible, due to limited resources of blood and increased demand there is significant need of rational use of blood and its component now. The study revealed a high prevalence of IDA and BTT in blood donors and a higher probability of finding these in the microcytic samples. This prompted authors to suggest an algorithm for screening of blood donors for IDA and BTT. The algorithm recommends doing a hemogram on all donor samples, routinely. Ferritin could be done only in microcytic samples. At levels lower than15 ng/ml, it is diagnosed as IDA, and therefore, HPLC is performed only for non-IDA samples with Ferritin levels higher than 15 ng/ml. By employing this algorithm, a substantial number of IDA and BTT could be diagnosed while keeping the number of Ferritin tests small and the number of HPLC tests even smaller and thus making it cost efficient.

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MW VOICE TRANSMITTER

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Abstract

Electronics attain a very vital role in human life. It has a great share in communication and entertainment. During the early part of the present century, electronics found its main application in telegraphy and telephony. These devices utilize a pair of conducting wire. But now message can be transmitted from one place to another without using wire. This has become possible only due to the discovery of radio waves. The specific objective of this study is to deal with electrical circuits that involve active electrical components such as vaccum tubes, transistors, diodes, integrated circuits, optoelectronics, and sensors, associated passive electrical components. This study has been used secondary data about amplitude modulation, MW voice transmitter and AM transmitter from different books and articles. This article has adopted descriptive and analytical method.

Introduction

Electronic devices are components for controlling the flow of electrical currents for the purpose of information processing and system control. Prominent examples include transistors and diodes. Electronic devices are usually small and can be grouped together into packages called integrated circuits. Electronics possesses successful approaches in each and every field of scientific invention. Thus, global communications of information, digital computer, data processing in incredible speeds, robot control machine, medical diagnosis, etc. are the valuable gifts of electronics. Therefore, electronics today is a discipline and cannot be defined in brief.

These all kind of development is only possible due to investigation of vacuum tube. But due to high power consumption and large size the devices used in vacuum tube was thought large and difficult to handle. Hence, the invention of transistor in 1948 completely displaced the vacuum

tube. Solid state electronics includes integrated circuit (IC) which combines in one solid chip, with the required resistors, capacitors.

Electronics comprises the physics, engineering, technology and applications that deal with the emission, flow and control of electrons in vacuum and matter. It uses active devices to control electron flow by amplification and rectification, which distinguishes it from classical electrical engineering which uses passive effects such as resistance, capacitance and inductance to control current flow.

Objective of the Study

The general objective of this study is to analyze various active components such as PN-junction diode, scholktey diode, and zener diode, and BJT, FET, UJT and silicon controlle rectitier and audio frequency. The specific objective of this study is to deal with electrical circuits that involve active electrical components such as vaccum tubes, transistors, diodes, integrated circuits, optoelectronics, and sensors, associated passive electrical components.

Significance of the Study

Electronics is widely used in information processing, telecommunication, and signal processing. The ability of electronic devices to act as switches makes digital information-processing possible. Interconnection technologies such as circuit boards, electronics packaging technology, and other varied forms of communication infrastructure complete circuit functionality and transform the mixed electronic components into a regular working system, called an electronic system; examples are computers or control systems. An electronic system may be a component of another engineered system or a standalone device. As of 2019 most electronic devices use semiconductor components to perform electron control. Commonly, electronic devices contain circuitry consisting of active semiconductors supplemented with passive elements; such a circuit is described as an electronic circuit. Electronics deals with electrical circuits that involve active electrical components such as vaccum tubes, transistors, diodes, integrated circuits, optoelectronics, and sensors, associated passive electrical components, and inter-connection technologies. The non-linear behaviour of active components and their ability to control electron flows makes amplification of weak signals possible.

Materials and Methods

This study has been used secondary data about amplitude modulation, MW voice transmitter and AM transmitter from different books and articles. This article has adopted descriptive and analytical method.

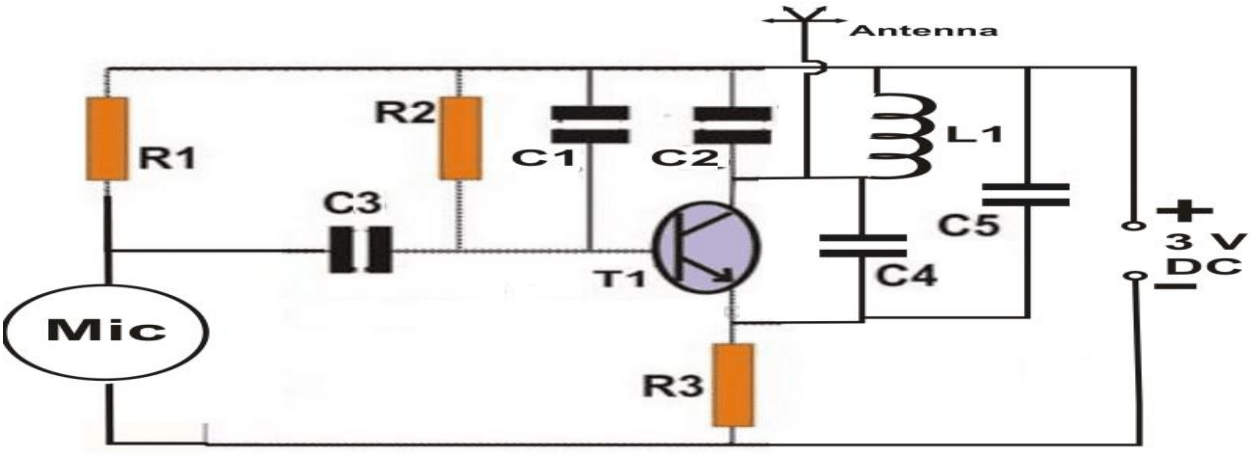
Analysis of Electronics Devices

Electronics equipments may contain large and complicated circuit. They may be capable of performing number of fantastic operations. A Close examination of electronic circuits reveals that they contain a few basic components broadly divided into passive and active components active components are those which can performs signal processing function such as single generation, rectification and implication. The passive components are those which cannot by themselves but these components have necessarily to be used with active component, so that latter they can perform the desired operations. Passive components are resisters, inductors, capacitors and are followed by tube device and solid state devices (Agrawal & Agrawal, 1997).

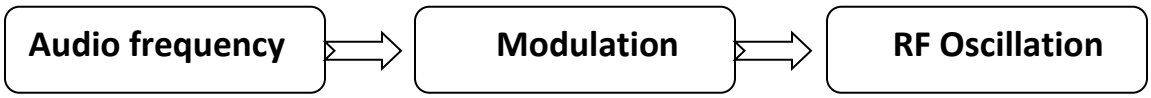
In solid state devices, these are various active components such as PN-junction diode, scholktey diode and zener diode, and BJT, FET, UJT and silicon controlle rectitier.

It also requires antenna coil. So, it is a very useful and interesting device which transmits audio signal from one place to another in the form of electromagnetic waves and is also used as wireless mouth speaker and is applicable in intelligence sector also (Gupta & Kumar, 1996).

Fig.1 Circuit Diagram for MW Voice Transmitter



Use Working Principle



Audio Frequency

Mic condenser has parallel plate capacitor whose one end is movable and other end is static. The supply voltage or the polarizing voltage is provided through the resistance R_1. When the sound wave incident on the moving plate of parallel plate capacitor, the plate vibrates to and fro, this is cause of change in capacitance vary the current. So, a varying current is produced which is called audio frequency current.

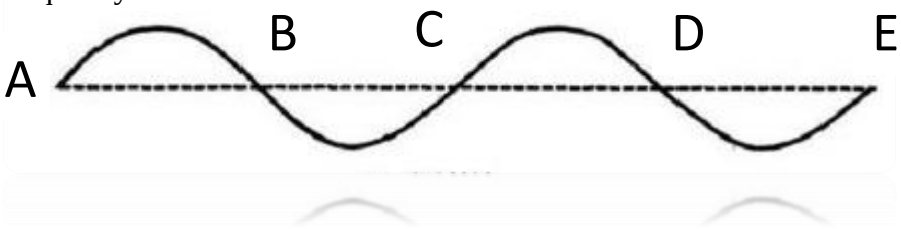


Fig. 2 A.F. Signal

Coupling

In coupling, the dc current is block and only ac current is allowed to pass. So, Capacitor C_3 blocks the dc voltage and allows passing the ac of current to the base of transistor.

Modulation

Modulation is the process of combining an audio frequency (AF) signal with a radio frequency (RF) carrier wave. The AF signal is also called a modulating wave and the resultant wave produce is called modulated wave. During modulation, some characteristics of the carrier wave are varied in time with the modulating signal and is accomplished by combining the two. The modulator is sub-system that combines that audio signal with the carrier signal from the oscillator to allow radiating as radio-signal. As the audio-signal fluctuates, the current into the base of the transistor also fluctuates (Malvino, 1983).

Similarly changes also occur in the capacitance between collector and emitter of the transistor. In above oscillation circuit the change in capacitance is caused by the change in frequency. As

audio-signal changes, the frequency of oscillator also changes or modulates, and modulated wave is propagated from its antenna as electromagnetic wave.

According to varying parameters, there are three types of modulation:

1) Amplitude Modulation (AM)
2) Frequency Modulation (FM)
3) Phase Modulation (PM)

1) Amplitude Modulation

The amplitude of the carrier wave is varied in proportion to the instantaneous amplitude of the information signal or AF signals. Obviously, the amplitude of the carrier wave is changed but not its frequency. Greater the amplitude AF signal, greater the fluctuations in the amplitude of the carrier wave (Thereja, 2005).

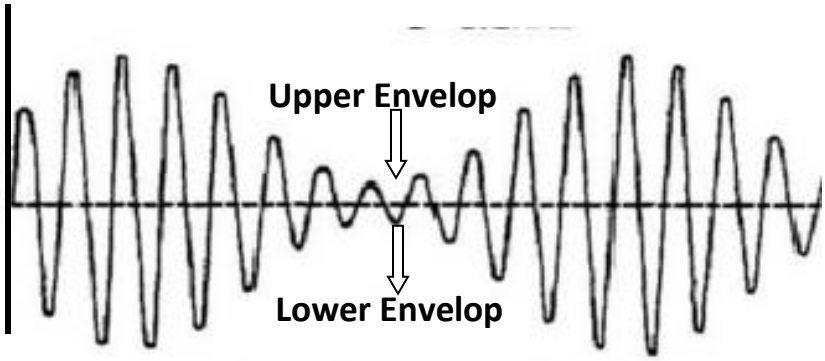


Fig. 3 C AMPLITUDE MODULATED WAVE

R.F. Oscillation

The voltage necessary for biasing the transistor is provided through R_2 for base and MW antenna coil. The natural resonance frequency for the oscillation is controlled by L_1 and C_2 her L_1C_2 is the tank circuit for oscillation C_1 provides feedback to the base. So, the frequency of oscillation depends upon the capacitor and the MW antenna coil (Inductor coil). All the capacitors have fixed value. So, frequency of oscillation is found between some values. The RF oscillator

produces carrier wave which only carries audio-signal from one place to another. It only carries the audio-frequency but not tunned in the radio.

Carrier Wave

It is a high frequency undamped wave produced by radio frequency oscillators. The output of these oscillators is first amplified and then passed on to an antenna. This antenna radiates out these high- frequency wave into space. These waves have constant amplitude and travel with velocity of light.

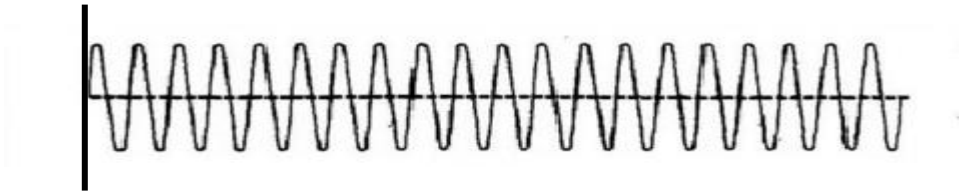


Fig. 4 Carrier Wave of MW Transmittion

Block Diagram of an AM Transmitter

The carrier wave is supplied by a crystal controlled oscillator at the carrier frequency. It is followed by a tuned buffer amplified and an RF output amplifier.

The source of AF signal is a microphone. The audio signal is amplified by a low level audio-amplifier and finally by a power amplifier. It is then combined with the carrier to produce a modulated carrier wave which is ultimately radiated out in the free space by transmitter antenna as showing below.

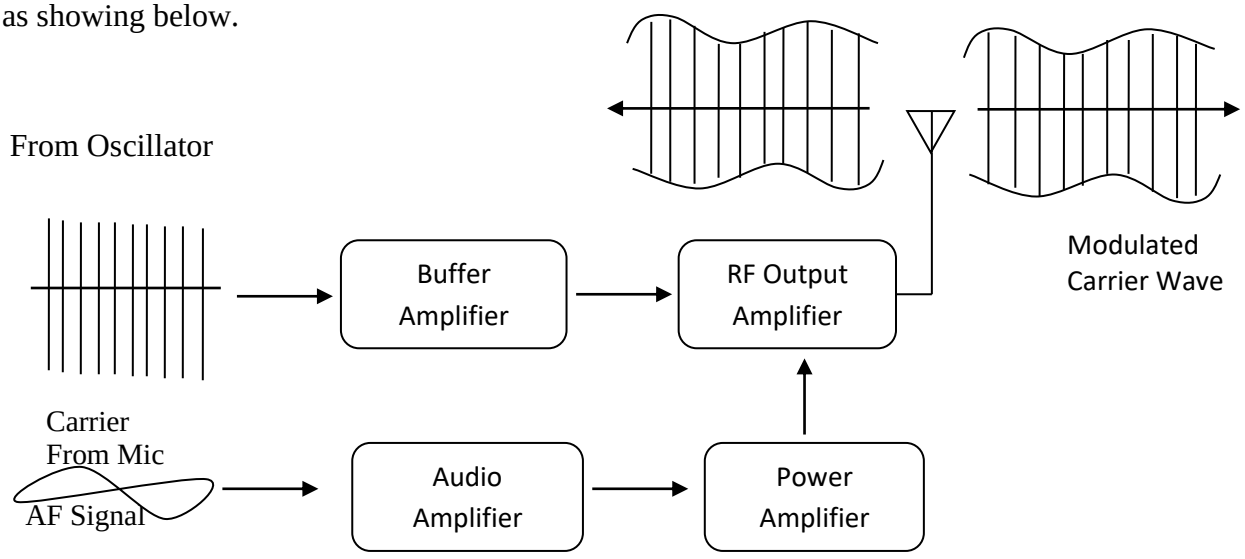


Fig. 5: Block Diagram of an AM Transmitter

Conclusion

If the researcher gets the accurate value of using components in the circuit diagram of MW voice transmitter, then he can easily get the required value of amplitude from this MW voice transmitter. This is a versatile apparatus and can be used for various purposes just like the researcher can transmit radio signal from one place to another without wire and it can be used from mouth speaker and intelligence sectors.

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THE DYNAMISM OF NEPALESE ECONOMY: GDP GROWTH AND COMPOSITION

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Abstract

The objective of this article is to analyse the GDP growth and composition of Nepalese economy using secondary data. Information based on constant price of FY 2001/02 is used selecting latest some years. CBS data has indicated the growth situation of GDP. Broadly, the economy can be classified as agriculture and non-agriculture, primary, secondary and tertiary. Various years' data indicates that the growth rate of primary sector is relatively lower than the other sectors of economy. GDP composition analysis in detailed has indicated agriculture as major economic activity at the national and province level. As the nation is in the process of federalism, the province-wise analysis of economic situation varies significantly. Macro-economic indicators and other important indicators to measure the performance of economy are capital formation, gross expenditure, savings, etc. The study of the trend and structure of the GDP is necessary to understand the situation and ways of the economy.

Key words: GDP composition, primary sector, secondary sector, tertiary sector, CBS

Introduction

Performance of an economy depends on the amount of goods and services produced in the economy in the specified period of time. In monetary terms, its measure is the Gross Domestic Product (GDP), Gross National Income (GNI), and Net National Income (NNI). Apart from these macro-economic indicators, other important indicators to measure the performance of economy are capital formation, gross expenditure, savings, etc. The study of the trend and structure of the GDP is necessary to understand the situation and ways of the economy. In case of Nepal, the analysis of national income data of various years is essential for attaining a clear understanding about the economy. It has been accepted that GDP also reflects living standard of

people (Anderson and Kreiner, 2015). This means it is clear that a country cannot possibly frame a plan without having a prior knowledge of trends in national income (Chanda, 2008).

GDP figures are important tools of macroeconomic analysis and policy formulation of the nation, especially for making long-term and short-term economic planning. GDP data enable to have clear idea about the structure of the economy, relative importance of the various sectors of the economy and their contribution. Modern governments try to prepare their budgets within the framework of national income data and try to formulate anti-cyclical policies according to the facts revealed by the national income estimates ((Freeman, 1995 & Wood, 1995). GDP figures are used to know the relative roles of public and private sectors in the economy. Analysis of GDP data are important even in the international sphere as these estimates help us to fix the burden of international payments equitably amongst different nations and enable to determine the subscriptions and quotas of different countries to international organisations like the UNO, IMF, IBRD, etc. (Raa & Wolff, 2001).

The emergence of service sector is unavoidable in process of structural change (Chanda, 2008). Service sector plays a key role as an input into the production of goods (and hence in the development of value chains) and in supporting productivity change, growth and competitiveness in other sectors. Many services have the economic characteristics of 'intermediation role'. Intermediate or producer services support the process of ever-finer specialization linked to economic development (Francois, 1990). Producer services are crucial from two perspectives: first, they are differentiated intermediate inputs into production, and second, they also carry out an important function in coordinating production processes, both within and, increasingly, across countries and play a key role in the achievability of global value chains (Balchin *et al.*, 2016).For instant, financial services are important for facilitating the accumulation of capital and fostering innovation (Levine, 1997). Information and communication technology (ICT) services help in the dissemination and diffusion of knowledge which can increase productivity. Transportation and logistics services are fundamental to moving goods or workers within and between countries. Health and education services are vital for expanding an economy's human capital (Balchin, 2017).

Objectives of the Study

The objectives of this study are to analyse the GDP growth and composition of Nepalese economy. The reason behind to select two variables are to analyze the situation and trend of macroeconomic variables such as Gross Domestic Product (GDP), Gross National Income (GNI), and Net National Income (NNI).

Materials and Methods

The research study has fully based on secondary data publishded by CBS (Central Bureau of Statistics) as the authorised data publisher in Nepal. Information based on constant price of FY 2001/02 is used selecting latest some years. Since the article is descriptive, so analysis is carried out considering simple calculation like rate, ratio and percentage.

Data Analysis and Discussion

National Planning Commission (NPC), Central Bureau of Statistics (CBS) is responsible for managing the GDP data in Nepal. It publishes annual as well as time series data of GDP at national level and provincial level through using the different methods of estimation. In addition to that, it estimates and publishes the growth rate and share of various economic activities in the GDP. The GDP growth shows the incremental capacity of the economy.

- ### Annual Growth of GDP

CBS has indicated the growth situation of GDP disaggregating the agriculture and non-agriculture components in broad category. Agriculture includes the agriculture, forestry and fishing where as non agriculture includes economic activities like manufacturing, handicrafts, processing, repairs, construction, mining and quarrying, transport, trade, communication, community and personal services, etc. The nature of agriculture and non agriculture sector is different and their growth rate may have various implications. Generally, the increasing situation of non agriculture sector indicates the shifting of economy and its trend in the given period of time.

Table: 1

Annual Growth of GDP by Broad Classification of Economy (Constant Price FY 2000/01)

Industrial Classification	Fiscal Year						
	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
Agriculture, Forestry and Fishing	1.10	4.55	1.10	0.23	5.20	2.82	5.06
Non-Agriculture	5.01	6.41	3.89	0.38	9.00	7.74	7.37
Gross Domestic Product (GDP)	4.13	5.99	3.32	0.59	8.22	6.70	6.99

Source: CBS, 2020

Note: R=Revised estimates

Various years' data of agriculture and non-agriculture sector indicate the continuous growth of GDP with some fluctuations. The growth rate of non- agriculture sector is higher in all years indicating the relatively prolific sector and contribution in the economy. Data compiled in the table 1 show that the growth rate of the economy has been led by the non agriculture sector. The growth rate of non- agriculture sector is higher in all the years indicating the relatively prolific sector and contribution in the economy.

In the same manner, the economic activities are classified according to the nature of economic activities in details. The objective of detailed classification is to find the sector-wise condition of the economy. For the data management to estimate the GDP the economic activities are grouped as agriculture and forestry, fishing, mining and quarrying, manufacturing, electricity, gas and water, construction, retail and wholesale trade, transport, storage and communication, financial intermediation, real estate, renting and business activities, public administration and defence, hotels and restaurants, education, health and social works, other community, social and personal service activities, etc.

Table: 2

Annual Growth Rate of GDP by Economic Activities (Constant Price FY 2000/01)

Economic activities	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19R
Agriculture and forestry	1.07	4.54	1.00	0.01	5.14	2.72	5.05
Fishing	2.71	4.90	7.09	11.76	8.02	7.42	5.60
Mining and	1.98	11.85	2.34	-2.79	13.74	8.88	8.91

quarrying							
Manufacturing	3.72	6.28	0.37	-8.00	9.70	9.17	6.82
Electricity gas and water	0.28	3.27	0.78	-7.59	20.47	9.64	9.15
Construction	2.45	9.08	2.85	-4.36	12.43	10.02	8.05
Wholesale and retail trade	7.25	10.89	2.42	-2.16	11.89	12.54	11.06
Hotels and restaurants	5.50	6.77	3.33	-9.68	7.33	9.77	7.33
Transport, storage and communications	7.65	5.24	6.23	2.02	6.47	4.65	5.90
Financial intermediation	-0.91	3.70	2.91	8.55	9.09	6.38	6.18
Real estate, renting and business activities	5.19	3.64	0.77	3.72	5.67	5.24	6.12
Public administration and defence	5.53	5.04	8.84	2.52	9.06	5.07	5.54
Education	5.92	4.81	5.09	7.33	7.39	5.02	5.11
Health and social work	4.48	4.50	11.37	3.25	7.34	6.33	6.75
Other community, social and personal service activities	4.79	4.77	12.52	5.55	5.58	5.54	5.73

Source: CBS, 2020.

Note: R=Revised estimates

Latest data available for various economic activities indicate the fluctuation in increment rate. Among the various activities, the growth rate of construction, electricity, and gas are higher than other activities except FY 2015/16. The growth rate of agriculture and forestry is improving over the years. The growth rate of agriculture, transport, storage and communication, real state, renting and business activities, are relatively lower over the years than construction, wholesale and retail trade, hotels and restaurants, and financial intermediation.

Economy again can be broadly classified as primary, secondary and tertiary. Primary sector includes the agriculture and forestry, secondary sector includes manufacturing and non agricultural production activities, and tertiary sector includes the service in the economy. Major Service sectors are: (i) wholesale and retail trade, (ii) hotels and restaurants, (iii) transport, storage and communication, (iv) financial intermediation, real estate, renting and business activities, (v) public administration and defence, (vi) education, (vii) health and social work, and

(viii) other community, social and personal service activities. These all sectors have different nature, and growth rate is different too.

Table: 3

GDP Growth Rate by Broad Classification

Sectors	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19 R
Primary	1.11	4.64	1.12	0.19	5.31	2.90	5.12
Secondary	2.69	6.92	1.42	-6.47	12.36	9.59	7.69
Tertiary	5.73	6.22	4.63	2.35	8.09	7.24	7.27

Source: CBS, 2020.

Note: R=Revised estimates

Various years' data regarding the growth rate indicates that the growth rate of primary sector is relatively lower than the other sectors of economy. Secondary and tertiary sector's performance is relatively higher with some fluctuations. This means these sectors are more prolific for overall GDP growth and employment generation.

- **GDP Composition**

GDP composition indicates the economic structure of the economy. Analysis of GDP composition shows the relative situation of various components of economy. It helps to understand and compare the sector-wise contribution, variation in contribution, sector-wise performance. In the same manner, it helps in sector-wise policy formulation to overall development.

Table: 4

GDP Composition by Broad Group Classification

Sectors	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19 R
Primary Sector	34.43	33.24	32.35	32.17	30.23	29.18	28.12
Secondary Sector	14.58	14.31	14.22	13.64	13.91	14.27	14.47
Tertiary Sector	51.00	52.46	53.44	54.19	55.86	56.56	57.41

Source: CBS, 2020.

It is observed that the share of agriculture in the economy is decreasing. Tertiary sector's contribution is increasing gradually. The contribution of secondary sector is more or less stable

over the years. The increasing role of tertiary sector indicates the relative importance of service production. Increasing share of such sectors shows higher prospects for increasing the employment in the economy.

GDP composition detailed analysis indicates the relative importance of various components of economy. Analysis of such detailed GDP structure shows the micro level nature of economy i.e. growth and share in the economy. It helps to understand and compare the details of about the various components of economy so that their relative contribution can be generalized for further action. In same manner, it shows the variation in sector-wise performance and helps for sector-wise policy formulation

Table: 5

Composition of Gross Domestic Product (at Current Prices)

Particular	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
Agriculture and forestry	33.40	32.16	31.27	31.08	29.14	28.03	26.98
Fishing	0.42	0.48	0.47	0.53	0.51	0.54	0.53
Mining and quarrying	0.61	0.60	0.60	0.56	0.58	0.61	0.61
Manufacturing	6.35	6.20	6.03	5.82	5.48	5.53	5.65
Electricity, gas and water	1.30	1.17	1.12	1.02	1.25	1.22	1.20
Construction	6.93	6.93	7.06	6.80	7.18	7.51	7.62
Wholesale and retail trade	14.54	14.90	14.69	14.11	13.55	13.88	14.37
Hotels and restaurants	1.89	1.94	2.05	2.00	1.95	1.91	1.85
Transport, storage and communication	8.90	8.55	8.37	8.06	7.55	7.14	7.22
Financial intermediation	3.93	4.36	4.64	5.19	5.54	6.27	6.34
Real estate, renting and business activities	8.81	8.40	8.47	9.21	10.95	11.27	11.58
Public administration and defence	2.04	2.43	2.61	2.54	2.84	2.65	2.72
Education	5.79	6.33	6.56	6.82	7.11	7.08	7.08
Health and social work	1.41	1.52	1.67	1.62	1.74	1.67	1.67
Other community, social and personal service activities	3.67	4.04	4.39	4.65	4.63	4.69	4.58

Source: CBS, 2020.

Note: R=Revised estimates

It is observed that the share of agriculture is highest among all followed by wholesale and retail trade. The share of agriculture is more than 26 percent, where as other sectors contribution is less than 15 percent. However, the share of agriculture is declining with the development of other various sectors of economy. Share of fishing, mining and quarrying is negligible and stable over the years. Share of construction, education, health and social work is also more or less stable.

As the nation is in the process of federalism, the province-wise analysis of economic situation is necessary. Each province has different economic situation due to variation in population composition, infrastructure development, geographical structure, etc. GDP composition analysis of various provinces indicates the relative importance of various components of economy in different province. Analysis of details GDP composition of different sectors indicates the relative economic strength of different sectors of economy, micro level nature of economy, prospects of the economic opportunities. It helps to understand and compare the detailed about the various components of economy so that their relative contribution can be generalized for particular province. In the same manner it helps in sector-wise and sub-sector-wise policy formulation in different provinces so that micro level problems can be addressed easily.

Table: 6

Composition of Gross Domestic Product by Province, 2018/19 (at Current Price)

Industrial Classification	Province							National
	1	2	Bagmati	Gandaki	5	Karnali	Sudur Paschim	
Agriculture and forestry	21.7	19.0	17.9	10.5	16.0	4.8	10.1	100.0
Fishing	12.7	56.6	5.5	0.6	22.0	0.1	2.5	100.0
Mining and quarrying	13.7	14.1	33.6	12.3	16.0	3.6	6.6	100.0
Manufacturing	22.0	14.6	35.7	5.3	16.1	0.7	5.4	100.0
Electricity, gas and water	21.9	7.7	33.1	20.9	8.32	3.8	4.3	100.0
Construction	18.	9.9	25.8	13.7	17.5	5.5	9.2	100.0
Wholesale and retail trade	10.5	12.3	56.1	5.2	10.2	1.7	4.1	100.0
Hotels and restaurants	14.9	4.8	39.8	17.5	11.9	5.6	5.6	100.0
Transport, storage and communication	10.6	16.4	48.8	7.4	13.7	0.7	2.3	100.0
Financial intermediation	9.0	6.5	63.6	7.7	9.9	0.9	2.4	100.0
Real estate, renting and business activities	9.4	6.3	63.7	5.9	8.4	2.9	3.5	100.0
Public administration and defence	15.0	14.3	18.0	12.1	16.8	11.1	12.7	100.0
Education	15.7	16.5	21.1	9.6	17.6	7.8	11.7	100.0
Health and social work	18.74	6.47	22.7	17.2	19.6	7.2	8.05	100.00
Other community, social and	19.16	7.58	22.7	15.1	19.3	5.8	10.5	100.00

personal service activities								

Source: CBS, 2020.

Note: R=Revised estimates

Table 6 reveals the highest role of agriculture in Province 1 and lowest in Karnali Province. In total fish production, Province 2 constitutes highest share (56.6) percent followed by Province five (22.0). The importance of manufacturing is highest in Province 3 than other provinces. The share of Province 3 is higher in electricity, gas and water related activities as well as hotel and restaurant activities.

Table: 7

Composition of Gross Domestic Product by ISIC Division, 2075/76 (at Current Prices)

	Proviences							
Industrial Classification	1	2	Bag mati	Gand aki	5	Karna li	S. Paschim	Natio nal
Agriculture and forestry	36.4	37.9	13.0	29.9	30.2	32.9	38.0	26.5
Fishing	0.4	2.0	0.1	0.0	0.8	0.0	0.2	0.5
Mining and quarrying	0.2	0.7	0.6	0.8	0.7	0.6	0.6	0.6
Manufacturing	7.8	6.2	5.5	3.2	6.5	1.1	4.3	5.6
Electricty, gas and water	1.7	0.7	1.1	2.8	0.7	1.2	0.8	1.3
Construction	9.0	5.8	5.5	11.4	9.7	11.0	10.1	7.8
Wholesale and retail trade	9.5	13.3	22.0	8.0	10.4	6.4	8.3	14.4
Hotels and restaurants	2.0	0.7	2.2	3.9	1.7	3.0	1.6	2.1
Transport, storage and communication	4.8	8.9	9.6	5.8	7.1	1.4	2.4	7.2
Financial intermediation	3.6	3.1	11.0	5.2	4.4	1.5	2.2	6.3
Real estate, renting and business activities	6.9	5.5	20.1	7.3	6.9	8.6	5.7	11.5
Public administration and defence	2.6	2.9	1.3	3.5	3.2	7.8	4.9	2.7
Education	7.0	8.8	4.1	7.3	8.8	14.3	11.8	7.1
Health and social work	2.1	0.9	1.1	3.2	2.4	3.2	2.0	1.8
Other community, social and personal service activities	5.8	2.7	3.0	7.7	6.6	7.1	7.2	4.8

Source: CBS, 2020.

Note: R=Revised estimates

The Province-wise analysis of varioue economic activities indicates that in Province 1, 2, Gandaki, 5, Karnali and Sudur Paschhims' share of agriculture is high compared to Bagmati Province. In Bagmati Province, the share of whole sale and retail trade has highest position

followed by real states, renting and business activities the share of fishing is significant in Province 2, where as in other provinces it contribution is less than one percent. The contribution of mining and quarrying is less in all provinces as well as national level.

There is variation in the growth of GDP in the years. The GDP structure is changing over the years and there is province-wise variation. The growth and share of various GDP components varies in case of broad and detailed classification. The share of agriculture is highest in all provinces except province 3. In province 3, wholesale and retail trade and real estate, renting and business activities have highest contribution.

Dynamics of Economy

Various studies have indicated that the share of service sector increases with a rise in the level of income. Service sector is more elastic for extension so that other activities get promotion and immediate return is possible. So investor's attitude is positive to service sectors' development and the share of service sector helps in employment generation and resources allocation. It is found that the proportion of the service sector may be positively correlated in nominal values. There are some other causes to shift the economy towards service oriented activities. This notion seems applicable in case of Nepalese economy. Due to prolonged instability in manufacturing sectors, investor's attitude shifted to the service sectors which are secure and urban centres oriented. Furthermore the structural change of the economy is important here. The shift to services sectors increases with an increase in the household expenditures on services. With the continuous structural changes, various service activities which used to be produced and consumed within the household should be transformed into marketable services (Fuchs, 1980; Inman, 1985).

Conclusion

The economy changes with the change in other various factors. It leads to changes the growth rate of the economy and its composition over the years. So the study of the trend and structure of the GDP is essential for attaining a clear understanding about the impact of planning on the economy. The economy can be classified as primary, secondary and tertiary as well as

agriculture and non agriculture in broad sense. Various years' data regarding the growth rate indicate that the growth rate of primary sector is relatively lower than the other sectors of economy. Secondary and tertiary sector's performance is relatively higher with some fluctuations due to various causes. GDP composition designates the economic structure and relative situation of various components of economy. It is observed that the share of agriculture in the economy is decreasing gradually though it constitutes still significant place in GDP. Tertiary sectors' contribution is increasing gradually. The contribution of secondary sector is more or less stable over the years. The increasing role of tertiary sector indicates the relative importance of service production in the economy and it is likely to expand further. This notion seems more applicable in case of Nepalese economy. Due to prolonged instability in manufacturing sectors, investors' attitude is found shifted to the service sectors which are secure and city-oriented.

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ECONOMIC IMPACT OF ECOTOURISM IN SAURAHA OF CHITWAN DISTRICT, NEPAL

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Abstract

Ecotourism is one of the major tourism of Nepal that has direct relationship with economic development of the nation. This study concentrates on the situation of Sauraha, one of the major tourist destinations of Nepal. Main attraction of Sauraha is ecotourism because people visit the site to enjoy nature and wildlife. The main thrust of this study is how ecotourism helps to enhance employment situation of the people living in surrounding area of Sauraha. For the study both primary and secondary sources of data have been used. Primary data were collected through questionnaire and secondary data were gathered from already published books, journal, reports and website. Findings of the study have been made through the analysis of primary data that had collected from the field by using survey questionnaire. On the basis of data analysis it is found that ecotourism is one of the main sources of employment and income in study area and most of the respondents have positive attitude about ecotourism and they also believed it as main source of income of the local people.

Key words: Ecotourism, Sauraha, Economic Development, Tourism, Foreigner.

Introduction

Tourism industry plays an important role in the development of the economy of Nepal. Development of tourism sector has contributed to increase employment, income generation and it has contributed to improve the balance of payment of the country. Development of tourism in anyhow an integral part of overall economic development. Nepal has become an attractive destination for the visitors from the world, Due to its natural beauty, cultural heritage, geographical diversity and diversity in living style, tourism industry has great potential for its development and expansion.

Concept of Tourism and Ecotourism

In 1910, the earliest definition of tourism was given by an Austrian economist Hermann Von Schullard. He states the "sum total of operations mainly of economic nature, which directly related to the entry, stay and movement of foreigners inside and outside a certain country, city or region". "Tourism" originated in the 19th century and cited for the first time in Oxford English Dictionary in 1811: "The business of providing accommodation and services for people visiting a

place." Tourism is generally the movement or journey of human beings from one place to another whether it may be within own country or other countries for various purposes (Bhatt, 2006)

A tourist is a person who travels away for at least 24 hours or one night. The reasons for such travels include leisure (recreation, holidays, health, education, religion and sport), business and family matters (Chandel & Mishra, 2016). A holiday maker, a conference delegate, and a traveling business person are all tourists. Five main characteristics of tourism may define what tourism is.

a) Tourism arises from a movement of people to and their stay in various destinations.

b) There are two elements in all tourism: the journey to the destination and the stay including activities at the destination.

c) The journey and the stay take place outside the normal place of residence and work, so that tourism gives rise to activities, which are distinct from those of the resident and working populations of the places, through which tourists travel and in which they stay.

d) The movement to destination is of a temporary or short-term with an intention to return within a few days, weeks or months.

e) Destinations are visited for purposes other than taking up permanent residence or employment remunerated from within the places visited.

Tourism is the temporary short-term movement of people to destinations outside the places where they normally live and work and their activities during the stay at these destinations, it includes movement for all purposes as well as day visits or excursions (Bhatia, 1994).

In Sanskrit literature, we find three terms defined for tourism derived from the root, which means leaving home for some time to other places.

Three terms are:

Paryatna: It means going out for pleasure and knowledge.

Desatna: It means going out of the country primarily for economic reason.

Tirthatna: It means going out to places of religious merits.

Concept of Ecotourism

In the late 1980s, the concept of eco-tourism was launched and became popular in very short time. Ceballos-Lascurain (1996) has defined ecotourism as “Tourism that involves traveling to relatively undisturbed or uncontaminated natural areas with the specific objective of studying,

admiring and enjoying the scenery and its wild plants and animals as well as any existing cultural aspects (both past and present) found in these areas." Richardson (1993) has defined Ecotourism as ecologically sustainable tourism in natural areas that interprets local environment and culture furthers the tourists understanding of them, fosters conservation and adds to the well-being of local community (Bhatt, 2006). The ecotourism is responsible travel to natural areas that conserves the environment and sustains the well-being of local people. Ecotourism is nature-based tourism that involves educational interpretation of the natural environment and is managed to be ecologically sustainable (Fennell, 2008).

Ecotourism denotes nature tourism with a normative element. A response to the desire to permit access to areas of natural beauty, ecotourism's underlying premise is that the enjoyment of future generations should not be affected negatively by that of today's visitors (Ceballos, 1996). Ecotourism denotes nature-based tourism but not vice versa. Nature-based tourism activities cannot be equated with ecotourism unless they directly contribute to conservation (Roxana, 2012). Tourists in wilderness or adventure travel may gain a deeper understanding of the natural places they visit. Their appreciation does not necessarily help those areas, and so cannot be defined as ecotourism (Regmi & Walter, 2016). The term ecotourism is defined as traveling to relatively undisturbed or uncontaminated natural areas with specific objectives such as studying, admiring and enjoying the scenery with its flora and fauna as well as any existing cultural manifestations found in those areas (Aall, 2011).

A significant recent phenomenon in the tourism industry is 'ecotourism' or 'nature tourism' which is gaining importance rapidly in a number of countries. Ecotourism that involves traveling relatively undistributed or uncontaminated natural areas with the specific objective of studying, admiring and enjoying the scenery and its wild plants and animals as well as any existing cultural areas in which the conservation of ecosystem and protection of biodiversity is aimed at, the desired types of tourists visit the protected areas/destination, and the organization and legislation of the tourism development support a sustainable development (Chauhan, 2004). Tourism is a mixed up of ecotourism, adventure tourism, pilgrimage tourism etc. Ecotourism is considered as the major factor for sustainable tourism development in Nepal (Bhusal, 2007).

Ecotourism and Economic Benefits

Ecotourism must also take into account the local population. Ecotourism should minimize negative impacts on the host community because otherwise the local population may come to dislike the presence of tourism, and this could undermine its long-term prospects. Tourism is likely to have the greatest socio-cultural impacts on small, isolated communities (Payne, 2001). As a result, any cultural changes in the community's way of life may reduce the tourism product's overall marketability and therefore future prospects. At the same time, ecotourism should

produce direct economic benefits for the local community if it is to receive their continued support benefits that should compliment rather than overwhelm traditional practices and sources of income (Wallace, 1993). However, such economic benefits and material wealth obtained by the local community may themselves lead to cultural changes in their way of life. The literature on ecotourism asserts that economic benefits should be accrued by the host community whilst at the same time *preserving* the environment and cultural way of life of that community. Little of the literature acknowledges the fact that the two will often be mutually exclusive. Wall (1997), noted the widespread misuse of the term "sustainable tourism", asserting that it should be considered as "tourism which is in a form which can maintain its viability in an area for an indefinite period or time". Considering that "ecotourism is not automatically sustainable", it may have to be viewed as part of a longer term strategy of sustainable development in which tourism is later phased out (Clarke, 1997).

It is widely agreed that the host population should receive economic benefits from ecotourism. Without economic benefits, the host community will have little reason to view the intrusion of tourists positively and will have little incentive to protect the environment upon which tourism depends (Haney, 2002). Ecotourism is often found in designated protected areas or national parks which may have been imposed upon the indigenous population and if they can see no benefit from it's existence, they may have little incentive to adhere to the environmental regulations of the "common pool" resource (Fennell, 2008). Ecotourism is regarded by some critics as a form of neo-colonialism, and the question of who actually benefits from the designation of protected areas (*https://www.gdr.org/uem/eco-tour2002/ year ecotourism 2002 html.)*

Nepal's eco-tourism on Scoop independence that the economic recovery of Nepal will depend on improved security because it is based upon assumption of the restoration of law and order, Addressing the underlying cause of the insurgency, widespread rural poverty, and the failure to spread the benefits of development more widely is critical for Nepal's tourism development (MoPE, 2004).

Nepal has immense potentiality in terms of tourism. The mystical Himalayan mountain kingdom on the roof of the world has held a very powerful appeal as a tourist destination. Nepal offers

tourists a breathtaking experience of nature and ever present mountain scenery, including Everest, the world's highest peak. Flora and Fauna in Nepal are truly amazing both in terms of their variety and in some cases, their rarity. The friendly populations of the country are generally very happy to share their innate hospitality as well as their many customs and traditions with the visitors (KC, 2017).

Objectives

The general objective of this research is to assess the economic impact of ecotourism at household level. The specific objectives of the study are as follows:

- To analyze ecotourism and employment opportunities in the study area
- To explore the socio–economic and cultural life of the local people in surrounding area of Sauraha
- To examine the economic impact of ecotourism in the study area.

Study Area

Sauraha is one of the main tourist destinations of Nepal. The site is famous for ecotourism. Most of the foreign tourists visit Sauraha for enjoying nature and wildlife. So, ecotourism plays vital role to make sustainable tourism in Sauraha. Sahuraha is located in Ratnagar municipality Bagmati Province of Chitwan district. Most of the economic activities run in the area are fully guided by the ecotourism.

Figure: 1 Map of Study Area

Source*: https://www.en.wikipedia.org/wiki/Chitwan_District*

Materials and Methods

Mixed method i.e., both qualitative and quantitative research design have been used to complete the study. Data were collected by using both secondary and primary sources. Secondary data are gathered from books, articles, reports, websites through library study and primary information are gathered through field survey and observation. Fifty individual respondents were randomly selected for this study and questions are asked to them about the relationship between ecotourism and economic activities in the study area.

General Information about Respondents

In this study, fifty respondents are involved in interview. Respondents are above 20 years and permanent dwellers of the study area. Their age composition, education status, sex and occupations are tabulated in the following table.

Table1: General Information about Respondents

S. N.	Sex	No.	%	Age	No.	%	Occupation	No.	%	Education	No.	%
1	Male	26	52	20-40	15	30	Farming	10	20	Primary	7	14
2	Female	24	48	40-60	25	50	Tourism business	30	60	Secondary	13	26
3	Total	50	100	Above 60	10	20	Service	5	10	+2	20	40
4	-	-	-	Total	50	100	Labor	5	10	Bachelor and above	10	20
-	-	-	-	-	-	-	Total	50	100	Total	50	100

Source: Field Survey, 2019

Table 1 shows the demographic information of the respondents. Data indicates that 52 percent are male and 48 percent are female. Like that 30 percent respondents are of age group between 20 to 40 years and 50 percent are age group of 40 to 60 years. In the same way, 20 percent are age group of above 60 years. While analyzing the occupational status of the respondents, 20 percent respondents are involved in farming, 60 percent are involved in tourism business, 10

percent are labourers and next 10 percent are involved in service sector. Likewise, 14 percent are literate and they only passed primary level, 26 percent passed secondary level, 40 percent passed +2 level, and only 20 percent have bachelor and above.

Data Analysis

Tourism industry in Sauraha has generated significant employment opportunities for local people. Although half of the staffs employed in accommodation establishments and restaurants are locals, most of them are employed in lower level jobs. Hence, proper education and training should be provided to them which will enhance their skills and capability to serve in higher level jobs, and also will increase their income level and improve their standard of living.

Table 2: Most Appreciate Features of Sauraha

Features	Excellent	Good	Bad	Don't know	Very bad	Total
Natural scenic beauty		50				50
Cultural heritage		40		10		50
Homely environment		50				50
Greenly forests		50				50
Local culture		40	5	5		50

Source: Field Survey, 2019

The table 2 shows the features of Sauraha. Out of total 50 respondents, most of the respondents appreciated natural scenic beauty, cultural heritage, homely environment, green forests and local culture respectively. Only few respondents were in favour of cultural heritage, green forest and local culture.

Table 3: Duration of Stay of Tourist in Sauraha

Duration of Stay	Number	Percentage
One day		
One- Two	50	100
Two- Four		
A week		
Total	50	100

Source: Field Survey, 2019

Table 3 shows the stay of tourists in Sauraha is one –two days. Almost all tourists stayed one – two days in hotels. It is because after two days they went to the trekking to up hills area.

Change in Socio-economic, and Cultural Aspects

One of the aspects of ecotourism in this site is the changing pattern of socio–economic and cultural life of the local people. It has been shown in this table:

Table 4: Tourism impact on various sectors

Impact	No of respondents	Percentage
Positive Impact		
Employment Opportunities	40	80
Income generation	42	82
Change in life style	35	70
Interacting with outsider	30	60
Negative Impact		
Environmental Degradation	20	40
Rapid change in socio-cultural value	25	50
Increase in Inflation	15	30
Misuse of Community Property	10	20

Source: Field Survey, 2019

Table 4 shows the impact of tourism in various sectors. Data indicate that majority of the respondents expressed their vote in positive impact. Among the positive impact 80 percent take it as an opportunity of employment, 82 percent note it as a means of increasing income source, 70 perrcent claim it as a tool of changing life style and 60 are in the opinion that it is a tool that helps to interact with outsider. Likewise while analyzing negative impact 40 percent charge it as cause of environment degradation, 50 percent blame it as causes of rapid changes of cultural values, 30 percent argue that it helps to increase inflation and 20 percent claime that it misuses the community property.

Table 5: Contribution to the Economy due to Tourist Inflows

Characteristics	**No of Respondents**	**Percentage**
Very much	5	10
Little bit	40	80
To some extent	5	10
No change	-	
Total	**50**	**100**

Source: Field Survey, 2019

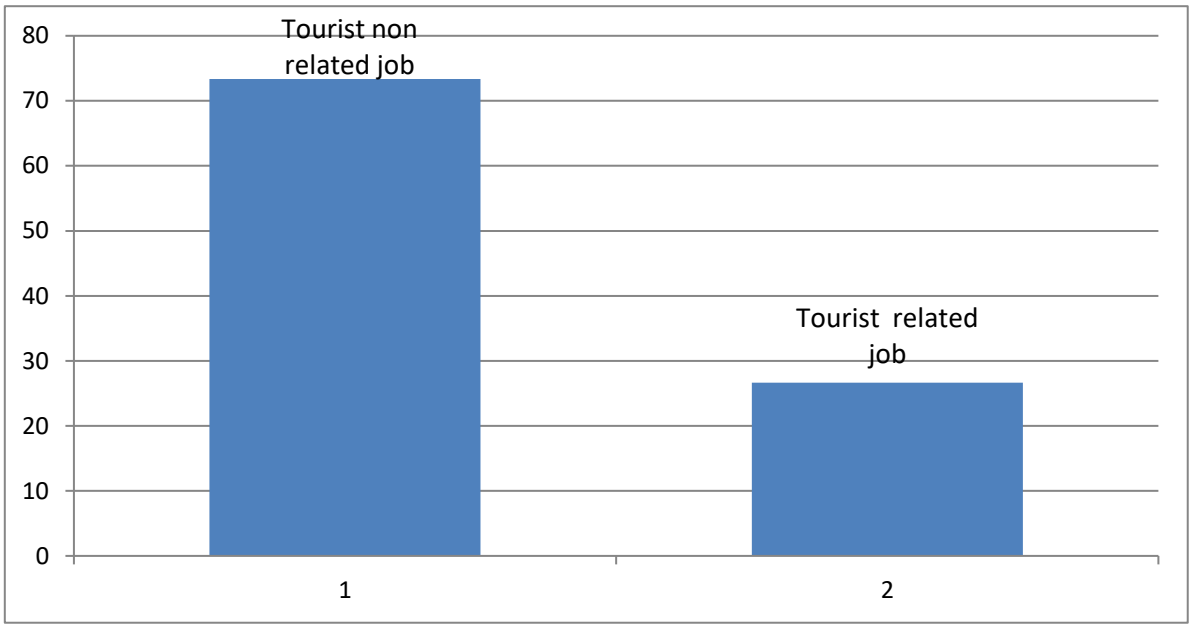
Table 5 shows the contribution to the economic change due to tourist inflow. It states that 80 percent of the total respondents responded that inflow of tourist contributed to change in economic value to some extent. 10 percent were in favour of little bit change in economic value due to tourists' inflow. Only 10 percent view that there is a big role of tourism in changing economic condition of Sauraha.

5.7 Employment

Tourism is a large industry based on labour intensive, proving a large scale of employment to the people of different levels. Mainly, there are two type of employment in this industry; direct and indirect. Direct employment in tourism institutions like hotels, travel, trekking, tourist guides, airlines, sellers, etc. and indirect employment including farmers and food supply, shopkeepers, entertainment sector so that tourism is an important source for employment in Chitwan too.

It is found in field survey that 73.3 percent of local people are directly non related in tourism sectors but 26.7 percent of people are doing tourism- related jobs.

Figure: 2 Percentage of People involving in Tourism Related Sectors



Conclusion

Sauraha has very high potentiality for tourism and ecotourism. Natural beauty, unpolluted environment, diversity in flora and fauna and best weather help to promote Sahurha as a unique ecotourism destination. Religious and cultural activities are found to be changing gradually due to tourism in Chitwan. The area is very rich in natural resources and cultural heritage. So the most preferred attraction of this site is its natural beauty and cultural diversity of different ethnic group. If we can develop the ecotourism, most of the people should not have gone abroad for job. Respondents believe that tourism is one of the main economic sources of Chitwan.

Recommendations

Chitwan has various tourist assets but lack of proper marketing policy; it could not have used its full strength in tourism sector. Most of the tourists who come in Chitwan visit national park region only, other parts of Chitwan are still to be explored. So other parts of Chitwan beside

Chitwan National Park region which have high potentiality of ecotourism should be introduced in tourism. There is necessity of intensive desire of government, local people, and stakeholders to promote ecotourism in Chitwan. Proper plans, policies and programs should be made in this regard.

Through the study of this site, personal interview with the tourists, local people, hotel owners and local government bodies, following recommendations are suggested to develop ecotourism in Saurha region as an famous ecotourism destination.

- The Government of Nepal Should establish ecotourism center in Sauraha.
- CNP should be provided CNP entrance card from Saurha also.
- Chitwan offers an excellent destination for trekker, so there is need to explore the new trekking routes. For this Chepang hill trail route should be promoted.
- Most of the hotels and guest houses are being run by uneducated owners, most of them even do not know what ecotourism is. So they should be trained as guideline of ecotourism.
- The Government/ NGOs, INGOs should encourage the local people to preserve their cultural heritage. It will provide double benefits: conservation of local culture and economic prosperity. Government should also establish a cultural museum.
- Efforts should be made to develop trained and skilled manpower at local level in order to provide efficient services to satisfy tourists.
- For the development of ecotourism there should be a domestic airport in Chitwan which helps to increase the flow of external tourists in this region.

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KAUTILYATAX SYSTEM AND ITS RELEVANCY IN NEPAL

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Abstract

Taxation is the backbone of Nepalese economy and obviously, taxation is more reliable than borrowing. There is always a need to have an effective tax system to raise sufficient government revenue.Kautilya was an Economist and philosopher of Eastern philosophy 2,400 years ago. He was a prominent Economist who made tremendous efforts in shaping modern taxation. Thus, the objective of this article is to explore the Kautilya's tax system and then to analyze the relevancy of Kautilya's tax system in Nepal.This research study is based on historical and analytical research design to analyze the Kautilya tax system and its relevancy in Nepal. Kautilya's tax system seems to focus on increasing the base, not the tax rate and it is still relevant to the Nepalese context. The current diplomatic relationship between all the countries of the world is basically based on great economist Chanakya's views. Kautilya's ***Arthshastra*** *provides valuable basis for economy. It contains useful insights about economics. It can still be used to our time and can be useful to illustrate several modern economic ideas. He offered a set of economic policies measures to promote economic development in the economy.*

Key words*:* Kautilya, Tax, Trade, Tax system, Diplomatic, Economy

Introduction

Kautilya is also known as Chanakya or Vishnugupta. According to Kamandak, Kautilya is his family name; Chanakya is derived from his father's name **Chanak** and his name is **Vishnugupta** (Sharma, 1967). Legend has it that Kautilya, a Brahmin by birth, was insulted by a Nanda king but cursed that the king, threatened to destroy him and he miraculously escaped, and disguised as an ascetic (Muniyapan, 2007).Thereafter, he swore that he would destroy the Nanda kings and the Greek foreign invaders from Aryavarta. He wandered in search of someone who could help

him, fulfill his vow of revenge. While travelling, he came to Chandragupta Maurya (Perhaps he got it either from Lumbini or from Bihar). Some historians believe that Chandragupta was related to a small tribe near Lumbini **(**Tripathi, 1977) because the place of origin of Mauryas is considered near Lumbini.

Kautilya was the key advisor to the Indian king Chandragupta Maurya (c. 317-293 BCE), who first united the Indian subcontinent in empire (Kangle, 1972). Written about 300 BCE, Kautilya's Arthasastra was a science of politics intended to teach a wise king how to govern. In this work, Kautilya offers wide-ranging and truly fascinating discussions on war and diplomacy including his wish to have his king become a world conqueror, his analysis of which kingdoms are natural allies, which are inevitable enemies, his doctrine of silent war or a war of assassination against an unsuspecting king, his approval of secret agents who killed enemy leaders and sowed discord among them, his view of women as weapons of war, his use of religion and superstition to bolster his troops and demoralize enemy soldiers, the spread of disinformation, and his humane treatment of conquered soldiers and subjects (Boesche, 2003).

Kautilya describes economics as the most important part for providing the basis for human existence and survival. He believes in public welfare but king's welfare. His economic ideas can be described in terms of welfare state, good governance, foreign trade, taxation, infrastructure, and growth-oriented public expenditures (Tanwar**,** 2014).

Rangarajan (1992) explained the origin of Kautilya’s Arthasastra and described Kautilya as a legend and author. Kautilya was not the originator of the science; he himself acknowledged that his work is based on similar treatises of the past. Application of the most stringent requirements for declaring economics as a separate science to Kautilya'sArthasastra validated A.K. Sen's claim that it is the first book on economics (Sihag, 2009).

In Kautilya's view, the tax system should be fair, and tax rates should reflect people's convenience to pay: Higher rates of sales taxation apply to the most expensive commodities traded and progressively lower rates of taxation apply to less expensive commodities (Sen,1992).

Tanwar (2014) Claimed that Kautilya advocated about broadening of tax base while tax rates should not be increased. He criticized the excessive burden of tax on people. Kautilya used to say "King must collect taxes like honey bee, enough to sustain but not too much to destroy".

Literature Review

The ideas propounded by Kautilya are still alive in the political scene and economics in India. He was successful in developing the science of politics, and his principles are seen being used by political scientists, economists and defense analysts today (Singh, 2013).

The study of Kautilya tax system is relevant even today. Kautilya's Arthasastra contains 46 articles reflecting various social, political, administrative and philosophical aspects of the Indian society during the times of Kautilya including Royal Residence, moral value, selection of officer, selection of spies, role of priests, wage system, documentation, role of women, marriage, and so forth (Gautam, 2013).

A big portion of government revenue was collected in the form of income tax from dancers, musicians, actors, and so on. This taxation was not progressive but proportional to the fluctuating income. An excess profit tax was also collected. General sales tax levied on sales, and the sale and the purchase of buildings subject to tax. Even gambling operations were centralized, and tax collected on these operations. A tax, called *Yatravetana*, levied on pilgrims. Though revenues collected from all possible sources, the underlying philosophy was not to exploit or overtax people but to provide them, as well as the State and the King, with the immunity from external and internal danger. The revenues collected in this manner spent on social services, such as roads, educational institutions, new villages, and such other activities beneficial to the community (Rana, 2008).

Kautilya favoured the increase in tax base, not the tax rate. His discussion on taxation gave an idea of three principles: Taxation power is limited, taxation should not be heavy, and tax increase should be moderate. He recommended a system of tax collection in such a way as to build up the permanent revenue-yielding capacity of the economy. He advocated indirect taxes like excise duties and customs duties, and direct taxes as income tax on individuals, wealth tax, and profession tax. According to him, tax receipts can be divided into three parts: income earned through taxes on goods produced within a country, income earned through taxes on goods produced in the capital, and income earned through taxes on imports and exports. He advocated the ability to pay approach: those rich persons should pay higher tax according to their paying capacity (Tanwar**,** 2014).

Kautilya's discussion of taxation and expenditure, apparently in keeping with traditional doctrine, gave expression to three Indian principles: taxing power is limited, taxation should not be felt to be heavy or exclusive, and tax increases should be graduated (Spengler, 1971).

Land revenue was an important source of taxation in ancient India. As Kautilya mentioned the tax system should be such as not to put a great burden on the public (*Praja*); the king should act like the bee which collects honey without inconveniencing the plant (Gairola, 1977). His economic thought guided by social welfare concept. He suggested heavy taxation for luxuries and other articles, which were not in favor of public welfare. Kautilya classified the main items of public expenditure into (a) national defense, (b) public administration, (c) salaries of ministers and expenditure on government department, and (d) expenditure on maintenance of armies (Kangle, 1986).

Mauryan public finance has mentioned that the Kautilyan tax system resembled the Roman Empire at its height; taxes levied on income, wealth in the form of both real and personal poverty, and market transactions—including both export and import duties, as well as poll taxes on the adult males. Furthermore, Kautilya has recognized that the ideal tax system should represent the following principles: convenient to pay, easy to calculate, inexpensive to administer, fair in its burden, non-distortive of economic behavior in its impact, and friendly to economic growth and development (Gopal, 1993).

Jha and Jha (1998) again explained that Kautilya’s Arthasastra did provide a valuable basis for economic science, a basis long neglected. It contains useful insights about economics. These insights were only independently discovered in the eighteenth century. As for the specific social and economic system that Kautilya outlines and provides advice, he would be the first to agree that his advice is relative to his time. Therefore, Arthasastra should be assessed in its historical context. Nevertheless, it contains many points of relevance to modern tax system of Nepal.

Kautilya said that the way and rule about how to collect fund to operate state are known as the rule of tax. According to him, the people able to pay tax are like ripe fruit in a garden and hence they should pay tax; however, the people having no capacity to pay tax should receive a given discount because they are like unripe fruit in the garden. It creates conflict in a society (Banjara, n.d.).

Objectives

The objective of the article is twofold. Firstly, it attempts to explore the Kautilya's tax system, and secondly, to analyse the relevancy of Kautilya's tax system in Nepal.

Materials and Methods

To analyze the Kautilya's tax system and its relevancy in Nepal, required informations are extracted from different books, journals, and online database.This research study is employed on the historical and analytical research design to analyze the Kautilya tax system and its relevancy in Nepal.

Results and Discussion

Kautilya has presented details of taxes and fees in his economics like bhansar sulk, byaji, bhag, nagadkar, cooperation, baidharan, wartani, paridh, prakaya, pindakar, shenabhakta, parshwo have been separated. Bhansarsulk is divided into prabesya, niskramya and dwardeya. The bhag is divided into shadbhag and balibhag. Cooperation is classified as pratikar and birsti. Figure 1 shows Kautilya tax system in detail.

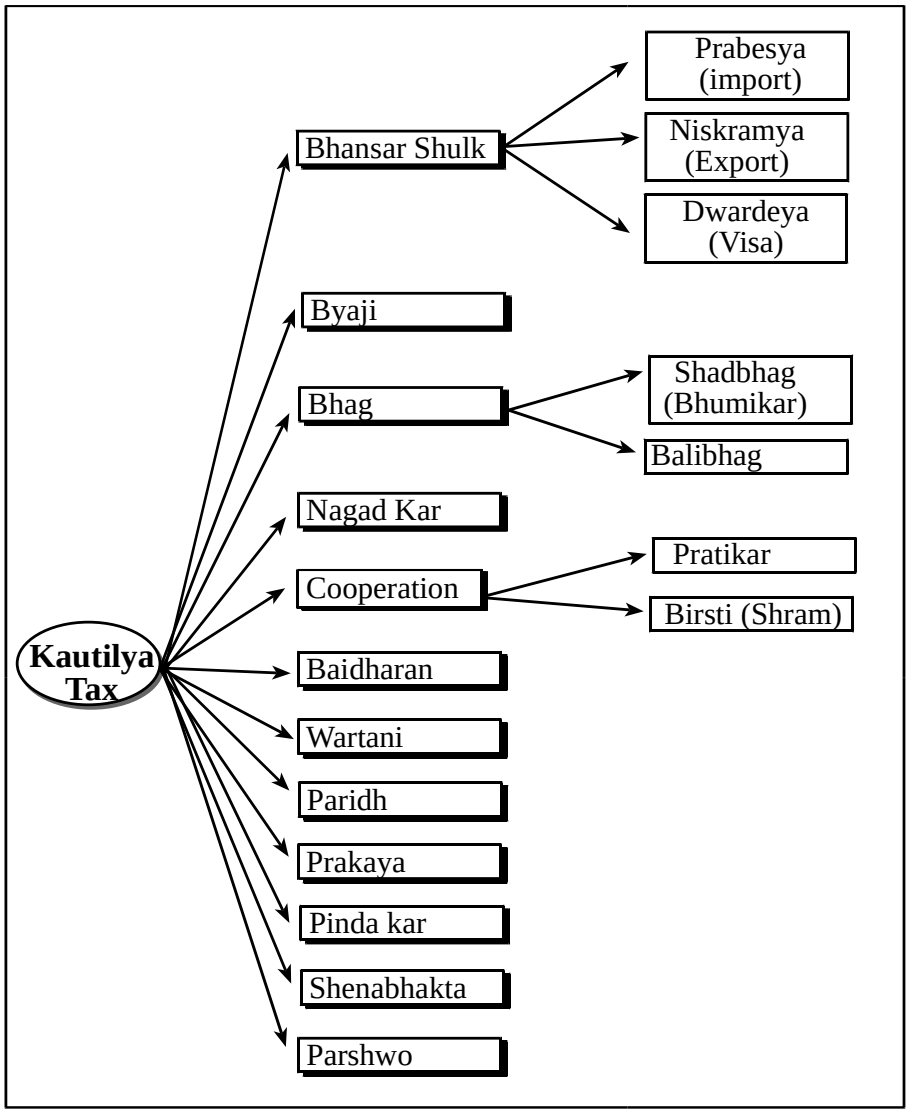

Figure 1. Kautilya tax system. Taken from *Economic Arrangement in Kautilya's Arthasastra and Shukraniti and Utilization of Government Fund* by B. R. Gyawali, 2011, Dang, Nepal.

Kautilya also describes some of the tax rates and fee rates in his economics. This is presented in Table 1.

Table 1: Rate of Tax/Fee in Kautilya Economics

S.N.	Tax / Fee	Kautilya's Economics
1.	From both irrigated and not irrigated land	16.67 to 33.33 percent of net production
2.	Merchants	20 percent

3.	Mining	as fixed by the state
4.	Salt	5 percent to domestic merchants but 16.67 to foreign merchants
5.	Cow, buffalo, and horse owners	10 percent
6.	Gold, silver, copper, iron	2 to 3 percent
7.	Loan interest	3 percent of profit
8.	Sandal wood and silk clothes	10 to 15 percent
9.	Animal product	16 to 32 percent
10.	Medicine and liquor	3 percent
11.	Grain, ghee, oil and others, and goods sold on carts	20 percent
12.	Artists	5 percent
13.	Contractors	10 percent
14.	Entertainment tax	10 percent
15.	Entry fee	20 percent of customs duties
16.	Casino	5 percent of won amount
17.	Sheep and goats owners	16.67 percent
18.	Meat, leather, fruits, hay, bamboo among others	20 to 25 percent
19.	Stone pot, mud pot, cooked food or vegetable sellers	5 percent

Source: Taken from Kautilya: The Arthisastra (pp. 259-260), by L.N. Rangarajan, 1992, Delhi, India: Penguin Classic (as cited in Gyawali, 2011).

In his economics, Kautilya describes tax rates and fee rates as well as the nature of taxes and tax rates. This is shown in Table 2.

Table 2: Nature and Rate of Tax in Kautilya's Economics

S.N.	Tax Name	Nature	Rate of Tax
1.	Fee	Entry	25 percent
2.	Fee	Exit	4 to 17 percent based on transaction
3.	Visa fee	To be taken at entry point	20 percent of import fee
4.	Interest	Transaction tax, but nature unclear	Not mentioned
5.	Labour	Tax to be paid as service	One day per month, and military service as per the need of state.
6.	Bartani (road tax)	Border or en route collection	1/16 pana to 1.15 pana

Source: Taken from Principle of Revenue Generation in Arthasatra (p. 270), by C. Rajendran, 2006, New Delhi, India: Deep and Deep (as cited in Gyawali, 2011).

In his economics, Kautilya also mentioned additional tax or penalty if the taxpayer is late in paying the tax. The rate of this fine is shown in Table 3.

Table 3: Service Fee and Late Fee in Kautilya's Economics

S.N.	Nature of Fee	Description	Rate
1.	Renewal of measurement a weight having state sign	Penalty crossing deadline per day	One kakani
2.	Permit	Service fee	One masa
3.	Terdaya	For the cost of close villagers	Half pana to 14 masa
4.	Test fee	While registering fund test of coins	12.25 percent

Source: Taken from Principle of Revenue Generation in Arthasatra (p. 270), by C. Rajendran, 2006, New Delhi, India: Deep and Deep (as cited in Gyawali, 2011).

Apart from the above mentioned Kautilya also describes various fees like gambling fee, dancer fee, singer fee etc in his economics. The rate of this fee is given in Table 4.

Table 4: Various fees and charges on Kautilya's Economics

S.N.	Title	Fees and charges
1.	Gambling	5 percent of won amount
2.	Ganika	16.67 percent
3.	Dance	5 pana per program
4.	Dancer	5 pana per program
5.	Singer	Two days income per month

Source: Taken from Kautilya ko Arthasastra (pp. 3.20, 74-75), by K.R. Aryal (Trans), 1967, Kathmandu, Nepal; Royal Nepal Academy &from Kautilya: The Arthisastra (p. 261), by L.N. Rangarajan, 1992, Delhi, India: Penguin Classic (as cited in Gyawali, 2011).

Kautilya not only mentioned tax collection but also provided tax exemptions and subsidy as per the need which are presented in Table 5.

Table 5: Tax Subsidy or Exemption in Kautilya's Economics

S.N.	Title	Subsidized rate/Tax exemption
1.	Load to be carried on shoulder	1 masa pana to 1.15 pana

2.	Wedding materials	Tax exemption
3.	Materials brought from maternal by bride	Tax exemption
4.	Gift given to donate	Tax exemption
5.	Materials for rituals, religious activities and temple, delivery uses.	Tax exemption

Source: Taken from Kautilya: The Arthisastra (pp. 267-268), by L.N. Rangarajan, 1992, Delhi, India: Penguin Classic (as cited in Gyawali, 2011).

In his economics, Kautilya has also described that he will impose penalty on those who commit tax evasion. This provision is presented in Table 6.

Table 6: Penalty Provision in Kautilya's Economics

S.N.	Title	Penalty
1.	Entrants without visa	4 times of entry fee
2.	Under invoicing	Equal to actual price of goods
3.	Buyer who pay more than the actual price	Double of the paid price
4.	Tax officers who encourage to evade taxes	8 times the penalty on merchants

Source: Taken from Kautilya: The Arthasastra (pp. 267-268), by L.N. Rangarajan, 1992, Delhi, India: Penguin Classic (as cited in Gyawali, 2011).

Kautilya's economics seeks to scientifically divide taxes at that time. Kautilya in his economics collected taxes from irrigated and non-irrigated lands, from merchants, mines, salt, livestock, lending, silk cloth, medicine, liquor, oil, contractors, entrance fees, gambling, meat, stones, pottery, and vegetable shops. The policy of widening the scope of tax seems to have been adopted at that time. Similarly, import and export tax seem to have started during his time.Kautilya also seems to have resorted to the practice of forcing the state to pay taxes on time by arranging fines for late payment of taxes.

In order to popularize its tax system, Kautilya seems to have given tax exemptions on wedding items, shoulder-loads, vows, rituals, temples and maternity items.

Relevancy in Nepal

Kautilya's two objectives of taxation-to collect tax revenues as much as possible and to use them for economic development-and his three principles (not imposing tax without representation, not imposing tax at a high rate, and imposing progressive tax to encourage economic activities like consumption, savings, and investment) (Shamasastry, 1915) are still relevant to Nepalese context. Kautilya's other views on taxation also appear to be applicable to Nepalese context: principle of convenience, inexpensive tax administration, fair tax authorities, equitable distribution of tax burden, consumption tax to be imposed so as not to change people's consumption behaviour, and income tax as well as property tax as a main source of tax revenue.

Kautilya described that the state should not impose tax haphazardly and it should not be based on the discretionary decision of the tax administration. In Nepal, the constitution clearly stipulates that tax is only levied as per the law and ratified by the parliament and only the authority can collect based on the prevailing laws.

Conclusion

Kautilya is an Eastern philosopher and economist dating back 2,400 years. He gave so much importance to the taxation system in the Arthasastra is not far to seek. According to him, the power of the government depended upon the strength of its treasury. He has classified taxes to make the tax system easier and simpler. He has set different tax rates on different items. Similarly, in his economics, he has advocated to give taxpayers a penalty if they are late in paying taxes and tax exemption if necessary. Taxation is the backbone of Nepalese economy and obviously, taxation is more reliable than borrowing. There is need to have an effective tax system to raise sufficient government revenue. Thus, Kautilya tax system is still relevant to Nepalese context.

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REPRESENTATION OF THE CHEPANG COMMUNITY IN NEPALI PRINT MEDIA OF CHITWAN DISTRICT

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Abstract

Chepang is one of the indigenous nationalities of Nepal originally living in central hilly region of Nepal mainly in three districts of Gorkha and Chitwan and Makawanpur. Chepangs are generally identified as poor and marginalized ethnic group of Nepal; however, their identities are still in confusing due to different interpretations of Nepali media. The study analyzes some interpretation of Nepali mainstream media about the Chepang and their issue. For this study I have observed news that published during 2020 July 1st to July 30th in two print media: Gorkhapatra and Kantipur. At present, the word Praja is renamed as Chepang and some of them write Praja as their surnames. The researcher has included interview of two activists (Chairperson of Nepal Chepang Association, Chitwan Branch) and chairperson of the Chepang School). Qualitative research design was used for this study. Primary data were collected from interview and secondary data were gathered from library-based research.

Key words: Chepang, print media, Chitwan, Praja

Introduction

Nepal is a multi-lingual, multi-ethnic and multi-religious country having a population of 29,136,808. Total Population of Chepang occupies 68,399 (CBS, 2011). The Chepang, also known as Chewang, are an indigenous Tibeto-Burman ethnic group mainly inhabiting the rugged ridges of the Mahabharat mountain range of central Nepal. Chepangs live in Rocky Mountains covered by forests which are not suitable for crops. So, their food sources have been the wild animals, tubers and fruits. In recent times, however, they have started new tools for cultivation. The Chepangs were identified as special group of people by various institutions and individuals. In 1977, the then King Birendra issued a directive to his Government for a targeted socioeconomic development plan for the entire community in the course of his visits in the Chepang areas. In the course of his visit to Manahari bazaar, Makawanpur, he termed them as

Praja. Since then they were called *Praja*, *Praja Bikas Karyakram* (*Praja* Development Program) was launched to support them bring out of hunting-gathering economy to the contemporary development. At present, the word *Praja* is renamed as Chepang and some of them write *Praja* as their surnames. Chepangs are aware of their rights and consider themselves as one of the indigenous communities of Nepal. Due to political changes in Nepal, level of awareness among Chepangs has been increasing tremendously and the identity of Chepang has been recognized. Today, it is a matter of pride for them to be Chepang rather than *Praja.* Chepangs have been identified as one out of 59 indigenous nationalities of Nepal (NFDIN, 2002).The Word Chepang appeared in the written form in the western researchers and travelers writing during the mid-nineteenth century. It referred to the ethnic people living in certain territory of Nepal with separate language and culture.

Many scholars, writers and anthropologists have carried out researches on Chepangs and identified them on the basis of their observation in different periods of time. B.H. Hodgson wrote descriptions on Chepang in *Asiatic Society of Bengal* (1847). He is the first known scholar who wrote about Chepangs and their language for the first time. According to him, "Interesting tongues of a genuinely aboriginal characters, which are spoken in the East of the Kali by the certain forest tribes existing in scanty numbers nearly in a state of nature such as the *Chepang* and *Kusanda*"(1236).

Amid the dense forest of the center region of Nepal, to the westward of the great valley, dwell in scanty number and nearly in state of nature, two broken tribes having no apparent affinity with the civilized race of the country, and seeing like the fragments of an earlier population, and it is in the very skillful snaring of the best of the field and the blow of the air that all the little intelligence is manifested.

Hodgson's description mainly focuses on the language as it was based on the mission of collecting language spoken in different parts of Mahabharat range. He was very much interested in Chepangs and asked the government of Nepal about their identities whilst Nepalese government answered, "Oldest people living in Nepal" (Adhikari, 2010). It makes clear that Chepangs are one of the oldest communities having separate ethnic identities.

This description shows that Chepang is one of the ethnic groups of Nepal which succeeded to attract enough attention of foreign scholars and researchers. However, no native scholars and government documents have mentioned anywhere about Chepangs in detail. Documented history of Nepal hardly mentioned about Chepangs although there are some references about their historical situation.

There is no particular description or a documented history of Chepangs, so it is not clear about their original place, however, it is accepted that they are one of the oldest communities of Nepal living in central southern part of Nepal.

After 1884, a number of writings on Chepang are found. In 1967, Dor Bahadur Bista mentioned about Chepang in his book *People of Nepal*. His descriptions fulfilled the long gap of study although his interpretation about Chepangs is similar to that of the western researchers. He identified Chepang in this way, “Chepang are one of the least known minority groups of Nepal and little former study has been made them”. He also used the same adjectives to address the Chepang which foreigners have already used while writing on Chepangs. In this regard, he says:

They speak their language, Tibeto Burman dialect which is quite different from the language of Tamang living close to them in the same area. I do not know if the Chepang language has any affinity with Rai language. My further interest is the similarity of marriage practice of Chepang and Tamang.

The Chepangs are the offspring of Sita's son *Lahari* or *Lava* who is famous in the Hindu epic *Ramayana*. During the exile of Sita, she had to stay in the cottage of a hermit named *Balmiki* near the Narayani River. Sita gave birth to a son named *Lohari.* One day she saw some monkeys playing with their babies. The scene was very moving. She too took her baby to the river to show the monkeys playing and entertaining with each other. But she forgot to inform about it to *Balmiki.* The *rishi* became restless as he did not find the baby in the cradle. He thought that Sita will be angry. Therefore, he created a new baby out of the '*Kuss* Grass' and the baby exactly looked like Lava. But as Sita was back she got surprised to see another baby in the cradle. Rishi

explained the events. Chepangs widely believe that they are the descendants of *Lohari,* the first son of Sita. (Adhikari, 2010)

This myth helps understand that how Chepang's identities are carried out through myth and sayings. This myth has great significant because Chepang claimed themselves as the son of land the "*Bhumi Putra*". Somehow the identities of Chepangs are related with the myth of Sita because of her origin and the end. She was originated directly from the earth by the ritual of ploughing. She is the symbol of mother earth who produced love (Lohari) in the absence of her husband Ram.

Objectives

The general objective of this study is to analyze the representation of the Chepang community in Nepali print media of Chitwan district. But the specific objectives are as follows:

- To analyze the involvement of Chepang community in Nepali print media,
- To explore various issues of the Chepang community related to poverty, unemployement, food scarcity and culture.

Meterials and Methods

Qualitative research design has been followed for this study. Both primary and secondary sources of data were used for this study. Books, journals, articles, websites were used as secondary sources of data. Primary sources of data were collected from personal interview with only two activists have been working in the field of Chepang community. Primary data were collected from Chitwan district where two incidents occurred in the month of July related to Chepang and the incidents covers by the newspapers. Only two Nepali language national daily newspapers were selected for this study. One was selected from government funded the oldest newspaper ' The Gorkhapatra' published by Gorkhapatra corporation and the next is private sector's largest and the most popular national daily ' the Kantipur' published by Kantipur Publication Pvt. Ltd. The study has covered only two months' period and the news that were published since June 1, 2020 to July 30, 2020.

Study Area

Chitwan district is the study area of this study because the two incidents occurred in the district in same month. One was occurred in southern part of the district in Bndharjhula, located in Madi municipality and next incident occurred in east part of the district Rapti municipality. Nepali media has covered the both and projected the Chepang as meek and oppressed people.

Map of Study Area (Chitwan District)

Source: District Coordination Committee Report, 2018, Chitwan

Analysis and Discussion of Print Media in Chepang Community

During the time of Rana regime print media introduced in Nepal in the name of Gorkhapatra. At that time Gorkhapatra could only publish the non-political issue. There was no option to write about indigenous people due to political system. After the establishment of democracy in 1951, Feb., some options could be seen to write about indigenous issues and some journalists also involved in the field of journalism from Newar and other ethnic communities, however, the situation remained the same for a long-time. With the promulgation of Constitution of Nepal 1990 Nepali media started to raise the issue of indigenous people.

Gorkhapatra, government mainstream Nepali newspaper and the Kantipur, the private sector's main Nepali newspaper are selected and the news published in these two newspapers about Chepang from 2020 July 1st to lily 30th. During the time issue of Chepang became crucial in state

because Chitwan national park authority set fire in some houses of Chepang by blaming them for invading the area of Chitwan national park. Other cases happened in Chitwan related to National park authority that was related to killing of a Chepang youth by military personnel. In short period various arguments and counter arguments appeared about the Chepang. In the same way Nepali media also covered the news in dense volume.

Nepalese Indigenous Journalist Organization was established in 1999. This organization raised the voice of voiceless people. Journalists working for aboriginal people are still rare in Nepali journalism. The number of journalists working in the mainstream national dailies is still limited. There is, moreover, hardly anyone of those who are working in them in decision making level. Those who are working in the national newspapers from the marginalized groups of people are servile to the dominant attitude carried by the Media houses and ruling class. They take the structure of domination and subordination in a simple or easy way.

Constitutionally, various nationalities exist in Nepal. Even, writers, thinkers and activists have spoken and written about the historical, political, social, cultural and linguistic problems of these groups. However, the daily newspapers do not take this issue of representation seriously. They just use them for the sake of their popularity and their name. This sort of consolation only limits them to the periphery/margin. This sort of representation cannot subvert the prevailing rigid structure of non-representation.

Issues of the Chepang are in increasing trends, but these issues are not new one and only cover the poverty and starvation. In the book *Nepali Mediama Dalit ra Janjati* highlighted the issues of indigenous people including Chepangs. At the first-time issues of indigenous people have been presented in detail. The books portray the representation in print media. All the news covered then is published in limited space which shows they are confined in the inner pages of those print media with less focused. That ideological news comes rarely as the editorial news. After 1990, the trend got changed but not drastically. In the book, “Nepali Mediama Dalit ra Janajati”, Shekhar Parajuli says:

Rare news is found in front page of print media about indigenous people. And editorial ideological and research-oriented articles are also found rare in print media. Comparatively, reporting is a little bit more, but that news is put aside in inner page in a narrow space. (Wanta & Parajuli, 1990)

So, the representation of indigenous peoples including Chepangs seen in limited space that cannot help to build a hold of their position in print media. Priority has not been given on their development issue; however, media present them as a meek creature of the society. They have been long been marginalized even through media, particularly the print media by offering very less space in the pages of the newspapers.

Presentation of Chepangs in Print Media

Due to lock-down of Corona virus issues of indigenous people could not be seen in Nepali mainstream media. In June only two news published in the Kantipur national daily newspaper but none of the news can be seen in Gorkhapatra. This published news covers very limited spaces. This news is related to the poverty and starvation of the Chepang. Among two news, one was about the offering of food and another was related to starvation. Both were related to poverty and unemployment (since June 1, 2020 to July 30 2020).

In the month of July, news related to Chepang tremendously increase both national and local newspaper cover the news in dense volume.The Gorkhapatra and The Kantipur are the two main newspapers that hardly cover local issue, however, in July these two newspapers cover the news in high range which is presented in the following table

Table 1: News Published in July

S.N.	The Gorkhapatra	The Kantipur
1	12	15

Table 1 indicates that among these two newspapers the Kantipur has given more priority than the Gorkhapatra. The Kantipur has published 15 news and Gorkhapatra has only published 12 news.It shows that the representation of the Chepang is high in that time becauseof two incidents that occurred in Chitwan. On the periphery of these incidents both local and national print medias have highly covered the news, however, the news is related to certain issues like killing and house burn. The news shows sympathy toward the Chepang and criticizes the action of Chitwan national park and Nepal government. This news has also been written in the same rhetoric because most of the news presents Chepang as meek.

Regarding this incident in Chitwan, I have taken interviews with two activists. Among two, one from Chepang community and next one was from none-Chepang community. The activist from the Chepang community did not like to the rhetoric of media because Nepali Medias always project Cheapng as weak and helpless that is not true at all.

According to him: In Madi's incident Nepal Chepang Association (NCA) raised the issue at the first time that showed Chepangs themselves are active to raise issue related to suppression and oppression but media did not cover the issue and only expressed sympathy towards the victims.The continuous struggles of NCA never covers by Nepali media. Similarly, in the incidents of Rapti municipality, NCA Chitwan branch raised the issue at the first time and compelled to National park authority to provide compensation to the victim's family but the National media project the event in different way and hide the role of NCA. (Personal Interview, 2020)

It shows that Nepali print media neglects the role of Nepal Chepang association and only sympathized victims by over emphasizing the issue.The arguments of the next activist are different.

In 2006, at the first time, Bimal Khatiwada the journalist of the Kantipur national daily, prepared news related to Chepang who lived in cave. After that, chief secretary of Nepal government and Prime- minister had visited the Chepang settlement and provided various support from government side. After that various issues related to theChepang frequently published in the National and local newspapers. Role of Chepang schools like *Gambesi,*

Navodaya, Antodaya and other non-government organizations is valuable to publish the news about the issues of the Chepang. In media, issues of the Chepang's are projected on the basis of information but in some cases the information would be wrong. At that time NCA and Chepang activists disagree about the media projection, however, the projection of media is not totally wrong. They play vital role to collect support and compel government organizations to provide support to the Chepang. In some cases, native activists themselves are also involved in media which is better option to represent them. In short, we can say that media projection is valuable for their upliftment and progress (Personal Interview, 2020).

Conclusion

At the first time, the word 'Chepang' has found in the writing of Shinibas, a tax collector of Prithivi Narayan Shaha. In his order, he mentioned the word 'Chepang' with Hayu, Kumal and Darai who pay less than one Aana (25 paisa) tax to the government (Regmi, 2005). After that B.H. Hodgson, British representative of Nepal, wrote about Chepang during the time of Bhimsen Thapa (Adhikari, 2013). In modern time, both national and international Medias raise the issue of indigenous people including the Chepang. In the case of representation of Chepangs, about 15 news reporting exist during two-months June, 1, 2020 to July 30, 2020. Their issues exist without clear vision of liberation of these groups. Only their vulnerability comes out with patronized form of representation according to the interest of the dominant class interest. The role of the journalists and publishing houses has to be concentrated for representing the real consciousness and demands of this groups.The representation of Chepangs seem misrepresented with lack of special attention.

Recommendations

- Journalists face various huddles to collect the news about Chepangs. It is better if they go to the field themselves and collect news from direct sources.
- Journalists should consult with Nepal Chepang Association to ensure the validity of the news.

- There is lack of authentic sources about Chepangs. So, the government should provide the authentic sources to the common people, which can ensure right representation of Chepangs in print media.
- Chepangs have to give clear information about them openly to the journalists which give the way to represent them in their media. They should create interest in print media.
- The government should systematize all the information about Chepangs, which lead them to the access up to different print media.
- Chepangs have to overcome their hesitation to give proper information to journalists. They should provide clear concepts and information about them.
- The journalists are not active and interested enough for collecting the information about Chepangs. They have to show their keen interest upon those indigenous people to collect authentic information. The journalists should actively interact with those indigenous groups to get real news.
- The authentic materials should be kept in particular library or somewhere else. The government should arrange reliable materials in a particular area, form where the journalists can collect prior information for news reporting and articles.

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HEALTH SEEKING BEHAVIOUR OF POPULATION IN LAMKI CHUWA MUNICIPALITY OF KAILALI

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Abstract

The aims and objectives were to know about the approach of people towards seeking medical advice with different options of healers, to observe thinking, feeling and various actions of people including level of self medication, and to know perception of people regarding various practices done by the healers.The study included people living in slum areas of Lamki Chuwa municipality ward no 1 Kailali district. This study was cross sectional and carried out on a sample of 300 permanent household members aged ≥ 16 years of middle and poor class living in urban slum areas of Lamki Chuwa municipality-1 of Kailali District. The mean age of the study participants was 38.27 with standard deviation of 17.57. 182 (61 %) were male while 118(39 %) were female. Out of 300 study participants 260 (86.6 %) consulted with allopathi followed by 169 (56.33 %) consulting with MBBS general practitioner, 91 (30.3 %) with non-qualified or quacks, 25 (8.3 %) , consult with homeopaths, and 15 (4.6 %) with Dhami jhakri and faith healers (P < 0.05). Among the 300 participants148 (49.33 %) were from middle class group, while 152 (50.66 %) were from poor class. About one half of participants did self medication at home prior to consultation of health personnel. Health seeking behaviour is a complex phenomenon in developing countries like Nepal where poverty overrides all other factors in decision of selecting a healer. It is recommended that people should be educated in choosing a healer, which should be a qualified one.

Key words*: Health seeking behaviour, health service utilization, healers, elderly*

Introduction

Healthcare seeking behaviour is any action or inaction to undertake by individuals who perceive them to have a health problem or to be ill for the purpose of finding a proper remedy. Health seeking behaviour can also be referred to as illness behaviour or sick-term behaviour. Health seeking behaviour is situated within the broader concept of health behaviour, which includes activities undertaken to maintain good health, to prevent ill health, as well as dealing with any departure from a good state of health.

In the broadest sense, health behaviour includes all behaviours connected with keeping and maintaining a healthy physical and mental state. Health-seeking behaviours also include behaviours that deal with any deviation from the healthy state, such as controlling and reducing impact and progression of an illness.

The concept of studying health seeking behaviours has evolved with time. Today, it has became a tool to consider how people engage with the health care systems in their respective socio-cultural, economic and demographic circumstances. All these behaviours can be classified at various institutional levels: family, community, health care services and the state. In places where health care systems are considered expensive with a wide range of public and private health care services providers, considerate health seeking behaviours of different communities and population groups is important to combat unreasonable costs of health care.

Health seeking behaviour is taken as the primary and most vital step toward the medication of any health related complexity. By understanding the concepts of people about cause of any disease and the perception on any particular health related problem, we can explore their health seeking behaviour. It is widely believed that exploring the health seeking behaviour in different

socio-economic levels of any community is vital for proper planning and implementing of effective health services, particularly for poor community. Socioeconomic status is having greater impact on health care utilization especially in developing countries that is documented in many studies. For instance, wealthier families are taken health care service twice from formal and informal practitioners. Socio-economic factors including educational level, economic conditions, cultural beliefs, residence location etc. play a significant role to determine health care behaviour of a community overall. Low socio-economic status is a common barrier to get health services for people and those direct and indirect factors are-doctor fees, cost of transport, medicine etc.

It is found from empirical studies from Nepal and few other countries that socio-economic condition is considerable factor of health care seeking behaviour for a community. From this mentioned backdrops, it is necessary to understand the health seeking behaviour and explore the socio-economic determinants on this, especially in low economic community. Therefore, this study has been conducted in rural area of Nepal to identify the socio-economic factors and phenomenon of rural community on their health care seeking behaviour. By doing this, any new socio-economic factors might include that can open a new door for policy makers to make effective and timely health intervention model.

Objective of the Study

- To examine the health seeking behaviour in Lamaki Chuwa Municipality,

Materials and Methods

This study is cross-sectional study. The study comprises of people of middle and lower socioeconomic status living in Kailali district from age 16 years and above. Simple random

sampling was done to select the sample to be surveyed. 300 participants were selected by random numerical technique; all people of middle class and lower socio-economic/ poor group of population irrespective of gender cum age disparity living in areas of Lamki Chuwa munciplity-1, Kailali district. Data was analyzed by using SPSS-20 software.

Results and Discussion

The mean age of the study participants was 38.27 with standard deviation of 17.57. Age range was from 16 years to 90 years. 182 (61 %) were male while 118 (39 %) were female. 92 (30.66 %) were illiterate, 47 (15.66 %) were having qualification of < primary level, 70 (23.33 %) were primary level passed, 61 (20.33 %) were SLC fail, 23 (7.66 %) were SLC passed, 06 (2 %) inter/+2 passed and only 1 (0.33 %) was Bachelor and above (Table- 1).

Table 1: Education Status of the Respondents

Education Status	Number	Percentage
Illiterate	92	30.66
Primary level fail	47	15.66
Primary level passed	70	23.33
SLC fail	61	20.33
SLC passed	23	7.66
Inter/+2 passed	06	2.03
Bachelor and above	01	0.33
Total	300	100.00

Source: Education was directly related to the health seeking behaviour (P<0.05).

Occupation of maximum participants were, office worker 61(20.3 %), and labourers 50 (16.7 %) while house wives were 91(30.3%). 30 participants (10 %) belonged to upper middle class

group, 118 (39.33 %) belonged to lower middle class group, while 152 (50.66 %) were from poor class (Table -2)

Table 2: Economic Status of Respondents

Economic status	Number	Percentage
Upper middle class	30	10.00
Lower middle class	118	39.33
Poor class	152	50.67
Total	300	100.00

Source: Field Survey, 2020

Out of 300 study participants (n=300), 109 (36.33%) consult allopathic healers including 90 (30.00%) MBBS general practitioners and 61 (20.33%) consulted non-qualified or quacks, 25 (8.33%) consulted homeopaths, 11 (3.68 %) consulted Dhamijhakri and only 4 (1.33 %) consulted faith healers ($P< 0.05$) (Table 3).

Table 3: Consultation of Health Personnel

Approaches	Number	Percentage
Allopathic	109	36.33
MBBS	90	30.00
Non-qualified or quacks	61	20.33
Homeopathic	25	8.33
Hakims	11	3.68
Faith healers	4	1.33
Total	300	100.00

Source: Field Survey, 2020

Signs and symptoms in these people were fever, enteritis, pain abdomen, urine problem, common cold, and allergy and skin diseases.

Discussion

Considerate human behaviour is condition to change behaviour and improve health practices. This study exposed how the people dealt with the sickness. For many diseases, there exists a superstition and cultural tradition continuing generation to generation, that is why the people consult hakims and faith healers. Minor ailments were dealt with learned experiences promoting self-care/self treatment. Meeting with healers also required money. Our study also exposed that the people preferred to consult healers because their fee-rate was cheaper.

However, many other studies have recommended that price or fee has relatively little impact on health care demand. In a study a household's poverty status emerged as a major determinant of health-seeking behaviour. In this study, most of the respondents (52 %) were of the opinion that healers were easily available. Negative impacts of the distance on usage of health services have been found by in many studies. The other determining factors influencing health care demand were gender and education. Gender disparities in access to health services have been studied in a number of countries. In this study it was not found so and education was directly related to the health seeking behaviour. Study found that half of the study participants used to prefer self medication in case of sickness. This could be because of their previous experience of a drug/ medicine or to avoid the expenditure of consulting a doctor. The level of literacy in my study, people were relatively high therefore majority of them consulted doctors as compared to rural population. This study exposed that the doctors exploited the sick people and that is why they used unevenly intravenous drips of glucose /vitamin B / Iron / calcium and testosterone to give a

pseudo impression of well being. There is a common trend of referring patients to a specialist doctor/ laboratory without cause. Most of the doctors owned a pathological laboratory/ X-ray unit/ Ultrasound machines and medical stores and therefore they try to send the patients unnecessarily to these outlets.

Conclusion

Health seeking behaviour is a complex event. This study has tried to reveal the active trend of health seeking behaviour of middle and lower class people of specific areas of Lamki Chuwa municipality Ward No 1, Kailali district. It was found that the people are following the old cultural beliefs and traditions and consulting the healers of their own choice. Poverty was the main factor in deciding the type of healer. Likewise, the level of literacy was another determining factor. Self-medication was very popular in the study subjects. This study also brought forward the carelessness being done by qualified MBBS doctors.

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RESPIRATORY TRACT INFECTION DUE TO NON-FERMENTATIVE GRAM NEGATIVE BACILLI IN A TERTIARY CARE HOSPITAL

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Abstract

Non-fermentative Gram-negative bacilli or non-fermenters have now emerged as important nosocomial pathogens causing lower respiratory tract infections in hospitalized patients. The rise in the incidence of infections due to non-fermenters and their resistance to a wide range of antibiotics necessitates characterization. This study was designed to isolate and identify non-fermenters and determine their antibiotic susceptibility patterns. This study was conducted at the department of clinical microbiology, Tribhuvan University Teaching Hospital from January 2017 to December 2017. A total of 173 non-fermenters were isolated from 996 respiratory samples which included 48.5 percent Acinetobacter species and 45.7 percent Pseudomonas aeruginosa. The majority of isolates was detected from intensive care unit patients and has age ≥65 years. The non-fermenters showed a high degree of resistance towards commonly used antibiotics. Thus, accurate isolation and identification of non-fermenters would be very useful for the proper management of hospitalized patients with lower respiratory tract infections. In this study, polymyxin B showed excellent effect against Acinetobacter species and Pseudomomonas aeruginosa isolates. Co-trimoxazole was found to be effective against Burkholderia cepacia complex and Stenotrophomonas maltophilia.

Key words: Antibiotic resistance, Acinetobacter species, Non-fermentative Gram-negative bacilli, Pseudomonas aeruginosa

Introduction

Non-fermentative Gram-negative bacilli (NFGNB) or non-fermenters are ubiquitous in nature, particularly in soil and water. In the hospital environment, they may be isolated from instruments such as ventilator machines, humidifiers, mattresses, and other types of equipments as well as from the skin of healthcare workers (Mellmann *et al*., 2009). Non-fermenters are most often considered to be commensals or contaminants but the pathogenic potential of these organisms has been established beyond doubt because of their frequent isolation from clinical specimens and their association with the disease (Arora, Aggarwal, & Sofat, 2003). Currently, *Pseudomonas aeruginosa* and *Acinetobacter baumannii* are the most commonly isolated non-fermenters pathogens from humans followed by *Burkholderia cepacia* complex and *Stenotrophomonas maltophilia* (Bhargava, Kar, & Saha, 2015).

In recent years, due to the liberal and empirical use of antibiotics, NFGNB have emerged as an important healthcare-associated pathogen (Gales *et al*., 2001). It can cause a vast variety of infections and account for approximately 15 percent of all Gram negative bacilli cultured from clinical specimens (Siou *et al*., 2009). Non-fermenters are a threat to the health care community because these can cause opportunistic infections in critically ill or immunocompromised patients. A recent literature review shows that these organisms are being associated with life-threatening infections in hospitalized patients such as septicemia, pneumonia, urinary tract infection, meningitis, surgical site infection, ventilator-associated pneumonia, wound infection, osteomyelitis, etc (Fass, Barnishan, Solomon, & Ayers, 1996). The treatment of infections caused by these organisms is challenging because of the high intrinsic and acquired resistance to all commonly used antibiotics (McGowan, 2006).

It is important to identify the NFGNB responsible for infections in hospitalized patients and determine their antibiotic susceptibility pattern to provide proper rational antibiotic therapy to hospitalized patients. This study will be useful in the formation of effective diagnostic approaches and policy of antimicrobial therapy for the treatment of lower respiratory infection (LRTI) caused by NFGNB in hospitalized patients. Therefore, this study was designed to identify non-fermentative gram negative bacilli isolated from hospitalized patients with LRTI and determine their antibiotic susceptibility patterns in a tertiary care hospital.

Objectives of the Study

The general objective of this study is to accurate isolation and identification of non-fermenters would be very useful for the proper management of hospitalized patients with lower respiratory tract infections.

Materials and Methods

This cross-sectional descriptive study was carried out in the clinical microbiology department of Tribhuvan University Teaching Hospital, Kathmandu, Nepal from January 2017 to December 2017 among hospitalized patients with lower respiratory tract infections. The ethical approval for the study was obtained from the Institutional Review Board of the Institute of Medicine. The clinical specimens collected from the lower respiratory tract (sputum, endotracheal aspirate, bronchoalveolar lavage fluid) of hospitalized patients were processed for isolation and identification of NFGNB according to the standard protocol of the American Society for Microbiology (ASM) (Isenberg, 2007).

The samples (sputum, tracheal aspirates, and BAL fluid) were examined microscopically for neutrophils and bacteria by Gram are staining. Then the samples were inoculated on a chocolate agar plate, blood agar plate, and MacConkey agar plate. The chocolate agar plates were incubated in CO_2 incubator (10% CO_2) at 37˚C for 48 hours while blood agar and MacConkey agar plates were incubated at 37˚C for 24 hours in an aerobic atmosphere. Identification of significant bacterial isolates were done by following standard microbiological techniques that involved the morphological appearance of the colonies, Gram's staining, motility test, catalase test, oxidase test with other biochemical properties (Isenberg, 2007).

The antibiotic sensitivity test (AST) of the NFGNB isolates were performed on Mueller-Hinton Agar (MHA) by the standard disk diffusion technique of the Kirby-Bauer method as recommended by the Clinical and Laboratory Standard Institute (CLSI) (CLSI, 2016). The results were compared with a standard chart developed by Kirby-Bauer to determine the bacterial susceptibility towards different antimicrobial agents in terms of 'sensitive', 'resistant', and 'moderately sensitive' (intermediate). The data generated during the study were analyzed using SPSS 16.0 version and interpreted according to frequency distribution and percentage.

Results and Discussion

During the study period, a total of 996 respiratory tract specimens collected from the inpatients of Tribhuvan University Teaching Hospital were processed for isolation and identification of bacterial isolates. The specimens included sputum samples, bronchoalveolar lavage fluid, and tracheal aspirate. From total samples, 465 (46.7%) samples showed significant bacterial growth which included 173 NFGNB isolates (17.4% of total samples).

Among the total 173 NFGNB isolates, 104 (60.1%) isolates were recovered from male patients and 69 (39.9%) isolates were from female patients with a male to female ratio of 1.51. The highest number of isolates (n=51, 29.5%) were isolated from patients of age group ≥65 years while the lowest number of isolates (n=27, 15.6%) were from patients of age group ≤15 years (**Figure-1**).

Out of total 173 NFGNB isolates, *Acinetobacter* species (n=84, 48.5%) was the major isolate recovered from LRTI followed by *Pseudomonas aeruginosa* (n=79, 45.7%), *Burkholderia cepacia* complex (n=8, 4.6%) and an equal number (n=1, 0.6%) of *Stenotrophomonas maltophilia* and *Sphingobacterium* species (**Table 1**).

Among ward wise distribution of NFGNB isolates, the highest number (n=104, 60.1%) of number of isolates were detected from intensive care unit patients, followed by medical ward (n=59, 34.1%), surgical ward (n=7, 4.0%), pediatrics ward (n=2, 1.2%) and orthopedics ward patients (n=1, 0.6%) (**Table 2**).

The antibiotic susceptibility test result showed that the NFGNB isolates exhibited a higher degree of resistance towards commonly used antibiotics in healthcare settings. *Acinetobacter* species showed >90% resistance towards piperacillin, ceftazidime, cefepime, and cotrimoxazole. Similarly, >80% of *Acinetobacter* species were resistant to ampicillin-sulbactam, piperacillin-tazobactam, ciprofloxacin, gentamicin, and meropenem. Among *Pseudomonas aeruginosa*, 92.4 percent isolates were resistant to ceftazidime, 91.1 percent to ciprofloxacin, 86.1 percent to cefepime and 82.3 percent isolates were resistant to levofloxacin. Similarly, 87.5 percent of the *Burkholderia cepacia* complex was resistant to ceftazidime and levofloxacin. All the isolates of *Acinetobacter* species and *Pseudomonas aeruginosa* were susceptible (100%) to polymyxin B

and while all the isolated of *Burkholderia cepacia* complex were susceptible to cotrimoxazole (**Table-3**).

The importance of isolation and identification of NFGNB has been increased in last decade after more and more reports are correlating them with the either infection outbreaks in hospitals or healthcare-associated infections. In the current study, we have searched for various non-fermenters present in the lower respiratory tract specimens of patients admitted to different ward of Tribhuvan University Teaching Hospital. The study was intended to provide trend and antibiogram of NFGNB isolates causing lower respiratory infections in hospitalized patients.

In this study, a total of 173 (17.4% of total samples) non-fermenters were isolated from lower respiratory tract specimens. Rahbar *et al.* (2010) from Iran also reported a positivity rate of 15 percent for non-fermenters which is similar to our result. The demographic data in our study showed that the patients most commonly affected by NFGNB infections were in age group ≥65 years which is in accordance with another study done from Iran where high prevalence of NFGNB infections seen in patients having >60 years because higher age group are more affected as infections due to these bacteria have a predilection for severely ill and higher aged patients (Rahbar *et al*., 2010). Among total of 173 non-fermenter isolates, *Acinetobacter* species was the most common isolates followed by *Pseudomona*s species and *Burkholderia cepacia* complex. *Acinetobacter* species are the predominant non-fermentative gram negative bacilli in hospitalized patients were also concluded in the studies done by Parajuli *et al*. (2017), Sah *et al.* (2014) and Shrestha *et al*. (2013) in the same hospital.

The pattern of lower respiratory tract infection due to non-fermenters in the patients of different wards was also evaluated in the study. Higher numbers of non-fermenters were isolated from patients of intensive care units followed by medical ward and surgical. Other study have also reported higher incidence of infection by non-fermenters in intensive care unit patients ICUs. It is a well-known fact that nosocomial infection rates in ICUs are many times higher than elsewhere in hospitals (Eltahawy & Khalaf, 2001).

In this study many NFGNB isolates were found as resistant to different antimicrobial agents and in some cases to nearly all agents. The antibiotic sensitivity of our study confirmed the alarming percentage of resistance exhibited by pathogens to the common antibiotics in use. *Acinetobacter* species isolates were found significantly resistant to carbapenem, aminoglycosides and

cephalosporins groups of antibiotics in this study. Study conducted by Xia *et al.* (2011) in China demonstrated that carbapenem resistance was seen in 85 percent of *Acinetobacter* species isolates which is nearly similar to this study. The increasing emergent of highly aminoglycosides-resistant strains is also cause of major concern. The fluroquinolone resistance is increasing rapidly in clinical isolates in recent years. In this study, 88.1 percent and 77.4 percent *Acinetobacter* species were resistant to ciprofloxacin and levofloxacin respectively. Even more resistance (>90%) to fluroquinolones was seen by Mezzatesta *et al.* (2008).

Among the antibiotics tested, 92.4 percent of *Pseudomonas aeruginosa* isolates were resistant to ceftazidime, 54.4 percent to gentamicin, 79.7 percent to piperacillin and 64.5 percent to piperacillin-tazobactam while all the isolates were susceptible to polymixin B. Similar resistance rate was seen in the study done by Parajuli *et al.* (2017) in Nepal, Fatima *et al.* (2012) in Pakistan and Xie *et al.* (2011) in China. Antimicrobial resistance was also found common in isolates of *Burkholderia cepacia* complex. All isolates were found susceptible to cotrimoxazole, 87.5 percent to doxycycline, 62.5 percent to meropenem and only 12.5 percent were sensitive to ceftazidime. Similar pattern of susceptibility was reported from the study of Parajuli *et al.*(2017) However, carbapenem resistance in our study is lower than that of study done in Turkey (Dizbay, Tunccan, Sezer, Aktas, & Arman, 2009) and India (Gautam *et al.*, 2009).

In this study, polymyxin B showed excellent effect against *Acinetobacter* species and *Pseudomomonas aeruginosa* isolates. Co-trimoxazole was found to be effective against *Burkholderia cepacia* complex and *Stenotrophomonas maltophilia*. Other antibiotics found to be somewhat effective was doxycycline. However, the present study showed high antibiotic resistance rate against commonly used antibiotics and is a disadvantage for health care system in countries like Nepal as it can greatly affect patient management. This may be because of the intense use of antimicrobial agent in the hospital, easy availability and indiscriminate use of these drugs outside the hospitals, and many antibiotics are available over the counter for self-medication.

Conclusion

Non-fermentative Gram-negative bacilli though considered as commensals or contaminants in past, observations from the present study it is clear that they can cause LRTI in hospitalized

patients. Most of the non-fermenters causing LRTI in the hospitalized patients were *Acinetobacter* species and *Pseudomonas aeruginosa*. Higher rates of resistant strains were common among these bacteria, which is particularly worrisome. Most of the non-fermenters isolates were only sensitive to polymyxin B. Thus, it is very important for clinicians to remain updated with current antimicrobial susceptibility pattern of circulating pathogens, and the antimicrobials to be used for empiric therapy should be selected accordingly.

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Figure-1: Distribution of NFGNB Isolates by Gender and Age Group of Patients with LRTI.

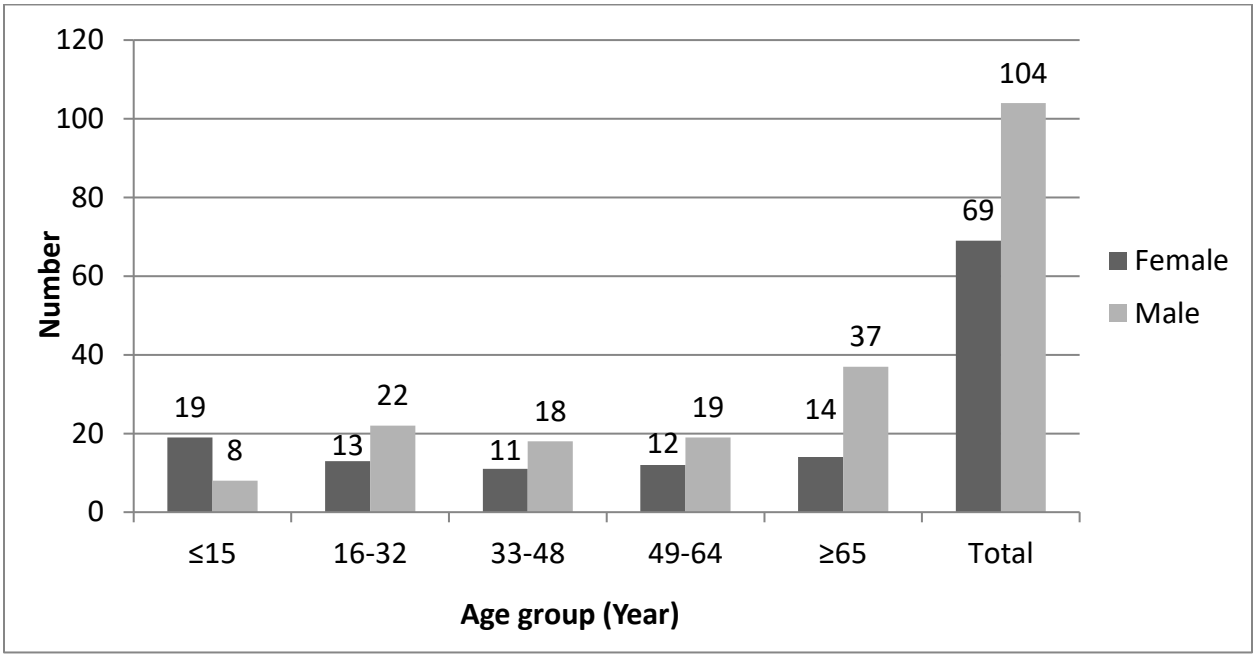

Table: 1

Distribution of NFGNB Isolated from Lower Respiratory Tract Infection

NFGNB Isolates	**Number**	**Percentage**
Acinetobacter species	84	48.5
Pseudomonas aeruginosa	79	45.7
Burkholderia cepacia complex	8	4.6
Stenotrophomonas maltophilia	1	0.6
Sphingobacterium species	1	0.6
Total	**173**	**100.0**

Source: Self calculation

Table: 2

Ward-wise Distribution of NFGNB Isolated from Lower Respiratory Tract Infection

NFGNB isolates	**Number (%)**				
	ICU	**Medical**	**Surgery**	**Pediatrics**	**Orthopedics**
Acinetobacter species	60	20	3	1	0
Pseudomonas aeruginosa	40	34	4	0	1
Burkholderia cepacia complex	3	5	0	0	0
Stenotrophomonas maltophilia	1	0	0	0	0
Sphingobacterium species	0	0	0	1	0
Total	**104 (60.1)**	**59 (34.1)**	**7 (4.0)**	**2 (1.2)**	**1 (0.6)**

Source: Self calculation

Table: 3

Antibiotic Susceptibility Profile of NFGNB Isolates

Antibiotics	***Acinetobacter* species**		***Pseudomonas aeruginosa***		***Burkholderia cepacia* complex**	
	S (%)	**R (%)**	**S (%)**	**R (%)**	**S (%)**	**R (%)**
Ampicillin-sulbactam	16 (19.0)	68 (81.0)	NT	NT	NT	NT
Piperacillin	6 (7.1)	78 (92.9)	16 (20.3)	63 (79.7)	NT	NT
Piperacillin-tazobactam	11 (13.1)	73 (86.9)	28 (35.4)	51 (64.5)	NT	NT
Ceftazidime	6 (7.1)	78 (92.9)	6 (7.6)	73 (92.4)	1 (12.5)	7 (87.5)
Cefepime	4 (4.8)	80 (95.2)	11 (13.9)	68 (86.1)	NT	NT
Cotrimoxazole	7 (8.3)	77 (91.7)	NT	NT	8 (100)	0 (0)
Chloramphenicol	NT	NT	NT	NT	5 (62.5)	3 (37.5)
Ciprofloxacin	10 (11.9)	74 (88.1)	7 (8.9)	72 (91.1)	NT	NT
Levofloxacin	19 (22.6)	65 (77.4)	14 (17.7)	65 (82.3)	1 (12.5)	7 (87.5)
Gentamicin	13 (15.5)	71 (84.5)	36 (45.6)	43 (54.4)	NT	NT
Meropenem	15 (17.9)	69 (82.1)	29 (36.7)	50 (63.7)	5 (62.5)	3 (37.5)
Doxycycline	36 (42.9)	48 (57.1)	NT	NT	7 (87.5)	1 (12.5)
Polymyxin B	84 (100)	0 (0)	79 (100)	0 (0)	NT	NT
S = Sensitive; R = Resistant; NT = Antibiotics not tested/not recommended by CLSI.						

Source: Self calculation

DEVELOPMENTAL STATUS OF MUTUAL FUND SCHEMES IN NEPAL

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Abstract

Development of mutual fund in Nepal is not so historical. In United States, development of mutual fund industry is the greatest investment success story in twentieth century and same Indian financial investment industry doing the best. Mutual fund industry in Nepal established with the first establishment of 'NCM Mutual Fund' 2050 in 1993 by Nepal Industrial Corporation (NIDC) Capital Markets. There are 18 mutual funds so far and most of them are traded in Nepal stock exchange. In this context, the main objective of this study is to get the facts and figures related to mutual fund schemes in Nepal based on secondary data which will ease the investors (new investors) to invest and assist to manage diversified portfolio. Secondary data have been used such as electronic media, textbooks, research articles, magazines, etc. This study is descriptive as well as analytical in nature. This paper includes the study of mutual fund companies, historical development of mutual fund, cost of investing in mutual fund, net asset value, issue of mutual fund at discount and premium, mutual fund schemes in Nepal.

Key words:- NEPSE, Discount & Premium, Scheme, Face Value, Market Price, Maturity, Mutual Fund, Fund Size, Net Asset Value, Cost.

Introduction

A mutual fund is termed as an open-end instruments company, which is always stand ready at all times to purchase its own shares and issue new shares to investors at Net Assets Value (NAV) which is computed daily at the close of the market, so the number of shares outstanding changes frequently. Mutual fund serves as a link between the investor and the securities market by mobilizing saving from the investors and investing them in securities market to generate returns.

The rate of return on investment in a mutual fund is measured as the increase or decrease in net assets value plus income distributions such as dividends or distribution of capital gains expressed as a fraction of net assets value at the beginning of the investment period (Bodie, Kane, Marcus &Mohanty, 2009)

$$\text{Rate of Return} = \frac{\text{NAV1} - \text{NAV0} + \text{dividend} + \text{distributed Capital gain}}{\text{NAV0}} \text{[:.Dividend layout plan]}$$

$$\text{Where, NAV} = \frac{Market\ value\ of\ the\ portfolio - Net\ Liabilities}{No.of\ share\ outstanding}$$

NAV_0 = Net Assets value at beginning period

NAV_1 = Net Assets value at the end of the period

$$\text{Rate of return} = \frac{(\text{No.of units at end} \times \text{NAV1}) - (\text{No.of units at beg.} \times \text{NAV0})}{\text{No.of units at beg.} \times \text{NAV0}} \text{ [:.Dividend reinvestment plan]}$$

On the other hand, the rate of returns is affected by the fund's expenses and 12b-1 fees. This is because such charges are periodically deducted from the portfolio, which reduces net assets value. Thus, the rate of return on the fund equals the gross return on the underlying portfolio minus the total expense ratio.

Objectives of the Study

The general objective of this study is to pay the attention to the different kinds of mutual fund schemes in Nepal. The specific objectives of the study are as follows:

- To analyze the market price of the Mutual Fund schemes,
- To find out the net asset value and dividend distribution of Mutual Fund schemes,
- To examine the Mutual Fund scheme size.

Materials and Methods

Secondary data have been used such as electronic media, textbooks, research articles, magazines, etc. This study is descriptive as well as analytical in nature.

Literature Review

An Investment company is a financial intermediary that is specialized in managing the financial assets for individual investors. It provides an outlet for the saving of large number of individual investors directing their funds into financial assets such as bonds, stocks and money market securities. Investment companies perform several functions for their investors like diversification, personal management, record keeping and administration, etc. (Paudel et al., 2019). There are three types of investment companies: Unit Investment Trust, Closed-end Investment Companies and Open-end Investment Companies. A unit Investment trust is an investment company that owns a fixed set of securities for the life of the company. The unit investment trust issues a fixed number of ownership shares called unit certificates (Alexander et al., 2002).

Closed-end investment company also called closed-end fund which sells shares like any other corporation and usually do not redeem their shares. Thus, the number of shares and capitalization of the fund is fixed and sold on either an organized exchange or in the over-the-counter market (Alexander et al., 2002).An open-end investment company more popularly referred as mutual fund, continually stands ready to sell new shares to the public and to redeem its outstanding shares on demand at a price equal to an appropriate shares of the value of its portfolio, which is computed daily at the close of the market (Fabozzi, 1995).The mutual fund industry is usually considered to have two sectors- Short-term fund and long - term funds. Regulation requires that mutual fund managers specify the investment objectives of their funds in a prospectus available to potential investors. This prospectus includes a list of the securities that the fund holds (Saunders & Cornett, 2004). Rauniyar (2016) has done the study on “Performance of Nepalese Mutual Funds” by using secondary data and primary data. The main objective of the study is to evaluate and compare the performance of closed end mutual fund scheme. This study has used Taynor ratio return as dependent variable and assets, expenses, turnover, age, liquidity to evaluate the performance of Fund. Rakhal (2017) described in his paper on “Current status of mutual fund schemes in Nepal” by using secondary data. Simple mathematical tools like average and percentage are used for the data analysis. He has highlighted ten Mutual Fund Schemes traded in Nepal Stock exchange in 2017.

- ## Mutual Fund in Nepal

In the United States, the term 'mutual Fund' refers to open-end funds only (Bodie, Kane, Marcus & Mohanty, 2009). However, in India and Nepal both the open-end and closed-end funds are called mutual funds. In Nepal, assets under the management the mutual fund industry were approximately NRs. 15.635 billion as of March 2020. With the floatation of NMC Mutual Fund in 1993, Nepali market entered into the era of mutual fund and these funds have been managed by merchant bankers (Fund managers) and sponsored by a commercial ('A' class Banks licensed by Nepal Rastra Bank). Mutual fund companies[1] are full subsidiaries of Commercial Banks who are the fund manager (Eldrum, 2017).

- ## List of Mutual Fund Companies in Nepal

1. NIBL Capital market
2. Laxmi Capital market
3. Global IME Capital
4. Siddhartha Capital
5. NMB Capital
6. Nabil Investment Banking Ltd
7. CBIL Capital
8. Prabhu Capital
9. Civil Capital Markets
10. NIC Asia Capital

- **Short-term Funds include:** Taxable money market mutual funds and tax-exempt money market mutual funds.
- **Long-term Funds include:** Equity funds (composed of common and preferred stock securities), bond funds (composed of fixed-income securities with a maturity of over one year), and hybrid fund (composed of both stock and bond securities)

Discussion and Analysis of Data

- **Historical Development of Mutual Fund**

The first mutual fund was established in Boston in 1924. The industry grew very slowly at first, so that by 1970, 360 funds held about $50 billion in assets. But at the end year of 2001, more than 8,300 different mutual funds held total assets of $ 6.97 trillion (Saunder, 2004); at the end year of March 2020 the total assets were $ 21.246 trillion with 7934 mutual funds (ici.org)

The mutual fund industry in India started in 1963 with the formation of Unit Trust of India (UTI) at the initiative of the Government of India and the Reserve Bank of India (RBI). By 1988, the assets under management (AMU) of UTI had grown to ₹6,700 crore and now at the end of March 2020, the total assets stood ₹28.29 trillion (₹28.29 lakh crore) along with around 1000 mutual fund schemes under 44 mutual fund companies (bankbazaar.com)

In Nepal, the history of mutual fund in Nepal Started with the establishment of "NCM mutual fund 2050" by Nepal Industrial Development Corporation (NIDC) capital market in 1993. The term of NCM mutual fund 2050 was completed in 2001. During the termination of NCM Mutual fund 2050, the fund holders were given option to refund or to participate in another new schemes called "NCM Mutual Fund 2059" on August 9, 2002. 7.17 million Units issued to the public at NRs. 10 Face Value per unit (Sharma et al., 2016)

Citizen unit schemes 2052 came into operation in the year 1995. Citizen Investment Trust has been managing this scheme. It was established as an open-end scheme with face value of NRs. 100 per unit. The development of mutual fund stagnated for same time as there was no regulation to regulate mutual fund business in Nepal. The Government of Nepal came with Mutual fund Regulations in 2010. After the enactment of the regulation, Siddhartha Capital limited came up with the First Scheme Siddhartha Growth Scheme in 2012. The scheme was closed-end type and of five years maturity. All the mutual funds in Nepal amount to a combined fund size of NRs. 15.635 billion as of March 2020.

- **Mutual Fund Schemes, Fund Size, Maturity Date, Face Value, Market Price in Nepal**

Table-1: List of Closed-end Mutual Fund Schemes

S.No.	Fund Managers	Fund Schemes	Symbols	Maturity Date	Maturity Period
1.	NIBL ACE Capital Limited	NIBL Samriddhi Fund-1	NIBSF1	2022-01-07	7 Years
2.		NIBL Pragati Fund	NIBLPF	2024-01-11	7 Years
3.	Global IME Capital Limited	Global IME Samunnat scheme-1	GIMES1	2023-03-24	7 Years
4.	Nabil Investment Banking Limited	Nabil Equity Fund	NEF	2023-11-06	7 Years
5.		Nabil Balanced Fund-2	NBF2	2029-05-31	10 Years
6.	NMB Capitalisation	NMB Hybrid Fund L-1	NMBHF1	2023-10-26	7 Years
7.		NMB 50	NMB50	2026-09-01	7 Years
8.	Laxmi Capital Market Limited	Laxmi Equity Fund	LEMF	2024-06-12	7 Years
9.	Siddharth Capital Limited	Siddharth Equity Fund	SEF	2027-11-08	10 Years
10.		Siddhartha Investment Growth Scheme-2	SIGS2	2029-08-26	10 Years
11.	Sanima Capital	Sanima Equity Fund	SAEF	2024-12-26	7 Years
12.	NIC Asia Capital Limited	NIC Asia Growth Fund	NICGF	2025-03-12	7 Years
13.		NIC Asia Balance Fund	NICBF	2029-08-27	10 Years
14.	CBIL Capital Limited	Citizens Mutual Fund-1	CMF1	2025-03-03	7 Years

15.		Citizens Mutual Fund-2	CMF2	2026-07-08	7 Years
16.	Sunrise Capital Limited	Sunrise First Mutual Fund	SFMF	2029-11-04	10 Years

Source: www.nepalstock.com

Table-1 shows that there are sixteen closed-end mutual fund schemes Listed and traded in Nepal Stock Exchange (NEPSE). These schemes are managed by different schemes managers. These Mutual funds are traded as other listed corporate securities are traded on NEPSE. The average maturity period of the fund schemes is 8 years. Similarly, the minimum and maximum maturity periods are 7 years and 10 years respectively.

Table-2: Face Value of Listed Scheme

S.N	Symbols	Fund Managers	Fund Schemes	Face value	Maturity date	Maturity Period
1.		Citizen Investment Trust	Citizen Unit Scheme	100	Not Listed Scheme	
2.		NIBL Ace Capital Limited	NIBL Sahabhagita Fund	10	Listed in NEPSE	

Source: www.nepalstock.com

Table-2 shows that there are two open-end mutual fund schemes which are traded in Nepal. But one is listed in Nepal Stock Exchange (NEPSE) traded as same closed-end mutual fund and another is not listed in NEPSE. Face value of listed scheme (NIBL Sahabhagita Fund) is NRs.10 and another scheme's (citizen unit scheme) is NRs. 100. These schemes do have not the maturity period.

Table-3: Fund Size and Face Value

S.N	Fund Schemes	Fund Size (000,000)	Face Value	Monthly NAV (NRs)	Monthly NAV (NRs)	LTP (NRs)	As of Date	Premium (+) or Dis (-)(%)
1.	NIBL Samriddhi Fund-1	1000	10	11.3	Magh 2076	9.72	2020/03/19	-17.49
2.	NIBL Pragati Fund	750	10	9.63	Magh 2076	7.7	2020/03/19	-28.84
3.	Global IME Samunnat scheme-1	1000	10	10.04	Magh 2076	9.2	2020/03/17	-10.07
4.	Nabil Equity Fund	1250	10	10.73	Magh 276	7.8	2020/03/19	-26.21
5.	Nabil Balanced Fund-2	1200	10	10.8	Magh 2076	8.21	2020/03/19	-25.36
6.	NMB Hybrid Fund L-1	1000	10	11	Magh 2076	8.84	2020/03/19	-21.98
7.	NMB 50	1250	10	10.54	Magh 2076	-	-	-
8.	Laxmi Equity Fund	1250	10	9.82	Magh 2076	8.1	2020/03/19	-21.85
9.	Siddharth Equity Fund	1500	10	11	Magh 2076	9	2020/03/19	-20.98
10.	Siddhartha Investment Growth Scheme-2	1200	10	10.83	Magh 2076	-	-	-
11.	Sanima Equity Fund	1300	10	11	Magh 2076	8.74	2020/03/19	-25.81
12.	NIC Asia Growth Fund	835.2	10	11.33	Magh 2076	9.06	2020/03/19	-23.80
13.	NIC Asia Balance Fund	755	10	10.72	Magh 2076	9	2020/03/18	-18.70
14.	Citizens Mutual Fund-1	820	10	11.27	Magh 2076	9	2020/03/19	-24.94
15.	Citizens Mutual Fund-2	1000	10	10.69	Magh 2076	-	-	-
16.	Sunrise First Mutual Fund	860	10	10.42	Magh 2076	-	-	-
17.	NIBL Sahabhagita	20.256	10	10.61	Magh 2076			

	(Open-end fund)							

Source: www.nepalstock.com

Table-3 indicates that initial Funds Size of all the closed-end mutual fund schemes and open end schemes is in million. There are at the end of March 2020, sixteen different closed-end mutual funds held total Assets of NRs. 16.97 billion (sharesansar.com). The maximum fund size of mutual fund schemes is NRs. 1500 million and minimum fund size is NRs. 750 million and average fund size is NRs.1060 million.

This table also indicates per unit face value, per unit last traded price (LTP) on mentioned date and per unit monthly average market price (Magh 2076) of the Mutual Fund Schemes. Per unit face value of Mutual Fund is equal i.e. NRs.10 and market price are different to each other. All the mutual funds are traded on discount. Per unit market price of mutual fund schemes range between NRs. 7.7 to NRs. 9.72

Table-4: Fund Size and Maturity Period

S.N	Symbols	Fund Schemes	Fund Size ('000,000')	Matured date	Maturity Period
1.	SIGS1	Siddhartha Investment Growth Scheme-1	500	2017-12-24	5 years
2.	NBF1	Nabil Balanced fund-1	750	2018-4-12	5 years
3.	SEOS	Siddhartha equity oriented scheme	1000	2019-7-22	5 years
4.	NMBSF1	NMB Sulav Investment fund-1	750	2019-10-20	5 years
5.	LVF1	Laxmi value Fund-1	500	2020-3-25	5 years

Source: www.nepalstock.com

Table-4 describes the recently matured Mutual Fund schemes delisted from Nepal Stock Exchange (NEPSE). These are five schemes, which were listed on NEPSE having maturity date from 2017 to 2020. All were 5 years of maturity period.

Table-5: Fund Schemes and Maturity Date

S.No.	Symbols	Fund Managers	Fund Schemes	Fund Size (000,000)	Face Value	Maturity Date	Maturity Period
1.		Sanima Capital Limited	Sanima Large Cap Fund	100	10	Coming	-
2.		Laxmi Capital Limited	LaxmiUnnatiKosh	800	10	Coming	10 Years
3.		NIC Asia Capital Limited	NIC Asia Dynamic Debt Fund	Open-end scheme	10	Coming	-

Source: www.nepalstock.com

Table - 5 indicates the upcoming mutual fund schemes, they are "Laxmi Unnati Kosh" closed end fund scheme whose fund manager is Laxmi Capital Limited and started to trade on IPO from 2076-12-13 (2020-03-26). "Sanima Larg Cap fund" is also a closed-end-scheme whose fund manager is Sanima Capital Limited. This scheme will be floating a total of 10 crores units at Rs.10 per unit. "NIC Asia Dynamic Debt Fund" is an open-ended mutual fund scheme whose fund manager is NIC Asia Capital Limited. The Securities Board of Nepal (SEBON) has added the "NIC Asia Dynamic Debt Fund" into its mutual fund scheme pipeline. The fund will be issuing a total of 5 crores units at a par value of NRs. 10.

Summary and Conclusion

The mutual fund industry of Nepalese stock market consists of 16 close end schemes and one open end scheme. Out of these only 12 schemes are currently traded on the secondary market. SIGS2, CMF2, SFMF & NMB50 are listed but not being traded. NIBL Sahabhagita fund (NIBLSF) is the only open-end mutual fund scheme currently traded in Nepal Stock Exchange (NEPSE).

The above tables reflect how the market is currently undervaluing mutual fund schemes. This presents, other things keeping constant, as a good opportunity for investors who want to make safe investments and cannot pay the required attention to their portfolios.

The fund manager calculates a fund's NAV each trading day at the market close. Investors receive the next available NAV. So if Investors place a trade at 11:00 AM, Investors will receive the days closing NAV. If investors place a trade after market close, investors will get the next days NAV. Investors won't know the exact price per share pay for mutual fund until the next market close.

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ANTIMICROBIAL SUSCEPTIBILITY PATTERN OF BACTERIAL ISOLATES CAUSING URINARY TRACT INFECTION.

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Abstract

UTI is a serious health problem affecting millions of people each year around the world. It is the most common bacterial infection. The present study was conducted at Subha Swostika Hospital Pvt. Ltd., Bardibas from May, 2019 to October 2019. The aim of this study was to isolate bacteria causing urinary tract infection, and to determine antibiotic susceptibility pattern of bacterial isolates. Seven hundred and fifty three mid stream urine samples were collected and investigated by microbiological well as conventional culture technique. Identification and susceptibility testing were performed by using standard bacteriological technique. Out of 753 mid-stream urine samples, only 33.6 Percent (253) of the samples showed significant bacterial growth. Status of bacteriuria was found higher in females (36.13%) than in males (30.83%), while pus cells were present in 70.78% (533) of urine samples with significant growth. Two samples (0.79%) devoid of pus cells showed significant growth. Status of bacteriuria was found higher in age group 21-30 (32.81%) followed by 31-40 (16.21%). Seven different organisms were isolated in which Escherichia coli accounted 90.5% followed by Klebsiella pneumonia (2.37%) and Staphylococcus aureus (2.37%). The antibiotic Nitrofurantoin was found to be most effective against gram negative bacteria (92.62%) followed by Cefotaxime (78.68%) and Cotrimoxazole (67.21%). The most effective antibiotic against gram positive bacteria were found to be Gentamycin (55.56%) followed by Ceftriaxone (44.44%). It is concluded that antibiotic resistance is increasing day by day whereas efficacy of antibiotics is decreasing simultaneously. So, antibiotic therapy must be recommended only after proper diagnosis of the disease.

Key words: Bacteriuria, Contamination, Urinary tract infection, Mid-stream urine, Pyuria

Introduction

Urinary Tract Infection (UTI) is one of the commonest bacterial infections caused by microbial invasion of tissue lining the urinary tract which extends from renal cortex to urethral meatus. It

also refers to the presence of bacteria undergoing multiplication in urine within the urinary drainage system and presence of more than 10^5 organisms /ml in the mid-stream sample of urine (Jha & Bapat, 2005; Leigh, 1990). Urethritis caused by Chlamydia and Gonococci is not included in the definition because of their unique characters and strict localization to the urethra and genital system (Pokhrel, 2004). UTI is associated with multiplication of organisms in the urinary tract and is defined by the presence of more than 100,000 organisms per ml in the midstream sample of urine (Cheesbrough, 2000).The anatomy of the female urethra is of particular importance to the pathogenesis of the UTI than male urethra. The female urethra is relatively short compared with the male urethra and also lies in close proximity to the perirectal region which is teeming with microorganisms, because of the short urethra the bacteria can reach the urethra and the bladder more easily in the female host (Forbes et al., 2002).The urinary tract consists of the kidneys, ureters, bladder and urethra. All areas of the urinary tract above the urethra in a healthy human are sterile (Forbes et al., 2002).

Infection may be expressed predominantly at a single site, kidney i.e. pelvis and cortex (pyelonephritis), pelvis and ureter (pyelitis), ureter (ureteritis), bladder (cystitis), prostate (prostatitis) and urethra (urethritis) but the entire urinary tract is always at a risk of invasion of bacteria, once any one of its part is infected (Brooks et al., 2004). UTIs that occur in a normal genitourinary tract with no prior instrumentation are considered “uncomplicated,” whereas “complicated” infections are diagnosed in genitourinary tracts that have structural or functional abnormalities, including instrumentation such as indwelling urethral catheters, and are frequently asymptomatic. Patients with an otherwise normal genitourinary tract who have symptomatic renal infection are diagnosed as having acute uncomplicated pyelonephritis. Asymptomatic bacteriuria (ASB) is defined as the isolation of bacteria from the urine in significant quantities consistent with infection, but without the local or systemic genitourinary signs or symptoms (Foxman, 2002).

Antibiotic resistance is the acquired ability of the pathogen to withstand an antibiotic that kills off its sensitive counterparts, such resistance usually arising from random mutations in existing genes or from intact genes that already serve a similar purpose. Exposure to antibiotics and other antimicrobial products, whether in the human body, in animals, or the environment, applies

selective pressure that encourages resistance to emerge favoring both ‘naturally resistant strains’ and which have ‘acquired resistance’. It is the temporary or permanent ability of an organism and its progeny to remain viable or multiply under environmental conditions, which would otherwise destroy or inhibit other cells (Hugo & Russell, 1993). Today antibiotics remain the front line therapy for conquering bacterial infection (Sharma, 2004). UTIs are treated with antibacterial drugs. The choice of drug and length of treatment depend on the patient's history and the urine tests that identify the offending bacteria.

Multiple drug resistance (MDR) bacterial isolates have been frequently reported from different parts of the world as an emergence of treatment problem. The MDR strain is defined as the strain that showed resistance to three or more antibiotics among commonly six prescribed drugs. An antibiotic resistance is defined as the microbe which is sensitive to certain antibiotic start gaining resistance against it. Infections caused by MDR strains often lead to death (Tuladhar et al., 2003). Increasing rates of resistance among bacterial uropathogens have caused growing concern in both developed and developing countries (Bradford, 2005; Gupta, 2002; Rodriguez-Villalobos et al., 2011). UTI is the commonest disease among Nepalese population. Financially sound people do not care to routinely check up their health. People generally seek for medical services only when the symptoms of the disease begin to become more evident. This negligence to asymptomatic diseases ultimately leads to serious complications.

Objectives of the Study

The objective of this study is to isolate and identify the etiological agents of UTI and determine their antibiotic susceptibility pattern of that group of patients having different age and sex structures and who have recently visited Subha Swostika Hospital Pvt. Ltd., Bardibas.

Materials and Methods

The present study was conducted at Subha Swostika Hospital Pvt. Ltd., Bardibas. The study was carried out from May, 2019 to October, 2019. During this period, a total of 753 urine samples from patients suspected of UTI were collected and processed according to the standard laboratory methods.

Specimen Collection and Processing

The patients were given a clean, dry and sterile and leak proof container and requested for 5-10 ml MSU samples. Before providing the container, each patient was instructed properly for the collection of sample.

After collection of sample, each container was examined properly first macroscopically and then with help of a sterile loop sample inoculated in to MA and BA followed by incubation at specific temperature and duration for growth of bacteria. After growth the isolates were identified by using different microbiological procedure given in a standard monograph and the antibiotic sensitivity test was performed on MHA plate (Cheesbrough, 2000).

Results

Out of total 753 patients, 499 cases (66.27%) were from outdoor patients and 254 cases (33.73%) were from indoor patients. Out of 393 total female patients, the distribution between outdoor and indoor patients was 310 (78.88%) and 83 (21.12%) respectively. Similarly out of 360 male patients, 171 (47.5%) were from indoor patients and 189 (52.5%) were from outdoor patients. In comparison to males higher numbers of urine samples were collected from females which account for 393 (52.19%).

Table.1: Age and Gender-wise Distribution of Patients

Gender	Indoor Patients	Outdoor Patients	Total
Male	171 (47.5%)	189 (52.5%)	360 (47.81%)
Female	83 (21.12%)	310 (78.88%)	393 (52.19%)
Total	254(**33.73%)**	499 (66.27%)	753 (100.00%)

Source: Subha Swostika Hospital Pvt. Ltd., Bardibas, 2019

Out of total 753 Mid-stream urine samples (MSU), 253 (33.60%) samples showed significant bacteriuria (i.e. ≥105CFU/ml), 474 (62.95%) were no growth and 26 (3.45%) samples showed insignificant growth.

Table 2: Pattern of Culture Result

Growth	Number of Samples	Percentage
Significant growth	253	33,60
No growth	474	62.95
Non- significant growth	26	3.45
Total	753	100.00

Source: Subha Swostika Hospital Pvt. Ltd., Bardibas, 2019

Out of 360 samples from male patients, 111 (30.83%) samples showed significant growth. Similarly 142 (36.13%) samples among 393 total samples from female patients showed significant growth.

Out of 253 isolates isolated from MSU samples in this study, 7 different species were isolated which are shown in below table. Among the isolates *E. coli* (90.5%) was found to be most predominant organism followed by *Klebsiella pneumoniae* (2.37%) and *Staphylococcus aureus* (2.37%).

Table.3: Number of Organism Isolated

S.N.	Organisms	Number of Isolates	Percentage
1.	*Citrobacter species*	03	1.20
2.	*Escherichia coli*	229	91.60
3.	*Klebsiella oxytoca*	03	1.20
4.	*Klebsiella pnemonae*	06	2.40
5.	*Proteus mirabilis*	03	1.20
6.	*Staphuloccus species*	06	2.40
Total		250	100.00

Source: Subha Swostika Hospital Pvt. Ltd., Bardibas, 2019

Nitrofurantoin (92.62%) among the test against gram-negative bacteria was found to be the most effective antibiotic followed by Cefotaxime (78.68%). Nalidixic acid (19.26%) was found to be least effective drug among the tested antibiotics for gram-negative bacteria.The most effective antibiotics against gram-positive bacteria were found to be Gentamicin (55.56%) followed by Ceftriaxone (44.44%).In case of *E. coli*, sensitivity pattern to different drugs was as follows:Nitrofurantoin (94.76%) followed by Cefotaxime (77.3%) and Cefixime(73.8%). Similarly Nalidixic acid (83.4% resistant) and Amoxycillin (63.75% resistant) was found to be least effective.

Table 4: Antibiotic Sensitivity Pattern of Isolates

Antibiotic used	Resistant	Intermediate	Sensitive
Amoxycillin	161 (65.98%)	08 (3.28%)	75 (30.73%)
Ampicillin	101 (41.39%)	00 (00.0%)	143(58.60%)
Cefixim	60 (24.59%)	00 (00%)	184 (75.4%)
Cefotaxime	49 (20.08%)	03 (1.23%)	192 (78.68%)
Ciprofloxacin	81 (33.19%)	17 (6.96%)	146 (59.83%)
Cotrimoxazole	80 (32.78%)	00 (00%)	164 (67.21%)
Nalidixic acid	197 (80.73%)	00 (00%)	47 (19.26%)

Nitrofurantoin	15 (6.14%)	03 (1.23%)	226 (92.62%)
Ofloxacin	70 (28.68%)	03 (1.23%)	171 (70.08%)

Source: Subha Swostika Hospital Pvt. Ltd., Bardibas, 2019

Discussion

Out of total 753 patients, 499 cases (66.27%) were from out patients department and 254 (33.73%) were from patients admitted to the Hospital. Similarly 393 (52.19%) of the patients were female and 360 (47.81%) were male. The age of the patient visiting hospital ranged from 4 to 92 years. The highest number of patients 213 (28.29%) belonged to the age group 21-30 followed by 120 (15.94%) belonged to adjacent age groups 11-20 and 31-40, 93 (12.35%) belonged to 41-50 age group. Larger number of female patients 144 (19.12%) were found in the age group 21-30 followed by 81 (10.76%) in age group 31-40.Similarly higher number of male patients 69 (9.16%) were found in age group 21-30 followed by 57 (7.57%) in age group 11-20.Out of total 753 Midstream urine samples (MSU), 253 (33.60%) samples showed significant bacteriuria (i.e. ≥105CFU/ml), 474 (62.95%) were no growth and 26 (3.45%) samples showed insignificant growth. Such a low rate of growth positivity for UTI was also observed (Dhakal, 1999; Gautam et al., 2004; Karki et al., 2004; Manandhar, 1996 & Obi et al., 1996). The possible cause of low rate of growth positivity is that the samples might be from patients under treatment, infection due to slow growing organisms or due to those organisms that were not able to grow on the routine media we used.

This finding was also lower than those reported by other investigators. Study carried out in a tertiary medical center, the Tribhuvan University Teaching Hospital located in northern part Kathmandu valley have shown bacterial growth positivity in 44.5 percent and 42.8 percent of outpatients and inpatients respectively (Tuladhar et al., 2003) . But the growth positive rate has been found to be reduced (37.3%) (Rai et al., 2001). Similar result of low growth was observed (Khadka et al., 2012; Ghimere, 2013 & Oscarson, 2014). The low growth positive rate observed in present study could be due to relatively small sample size and difference in the study population.

Out of 253 isolates isolated from MSU samples in this study, 7 different species were isolated which are tabulated in table 7. Among the isolates *E. coli* (90.5%) was found to be most predominant organism followed by *Klebsiella pneumoniae* (2.37%), *S. aureus* (2.37%),

Citrobacter freundii (1.19%), *Klebsiella oxytoca* (1.19%), *Proteus mirabilis* (1.19%) and *S. saprophyticus* (1.19%). These results were in harmony with the following results (Mathai et al., 2001; Baral et al., 2008; Shrestha et al., 2004; Dhakal et al., 1999; Farrel et al., 2003; Gales et al., 2002; Kahlmeter et al., 2000). The higher incidence of UTI by gram negative bacteria is also accounted in the study (Dhakal et al., 1999; Manandhar et al., 1996 & Shrestha et al., 2004). From this study and the study done by other researchers, researchers can conclude that high incidence of UTI is caused by gram-negative bacteria in comparision to gram-positive bacteria. This statement is more or less related to our results because some of the isolates belong to normal faecal flora i.e. *E. coli, Enterobacter* spp *and S. faecalis*.

In present study also, *E. coli* was isolated as the most predominant species and accounted for 90.5 percent of the total bacterial isolates (229 out of 253 isolates). Higher prevalence of *E. coli* in this study also resemble to the following study in Nepal (Chhetri et al., 2001; Dhakal, 1999; Datta, 2003; Khadka et al., 2012 & Ghimere, 2013).

Nitrofurantoin should be considered as drug of choice for acute, uncomplicated UTI, lower UTI without fever and with high probability of *E. Coli* (Tasbakan et al., 2012; Baral et al., 2012; Chander et al., 2013 & Sandberg et al., 2014). Nitrofurantoin is also effective in cases of ESBL-producing pathogens (Sandberg et al., 2014 & Tasbakan et al., 2012). Though Nitrofurantoin seems to be the most effective antibiotics against gram-negative bacteria, it is not generally prescribed in UTI caused by *Proteus* spp as this urease producing organisms render urine alkaline and thus decreasing the potency of drug in vivo (Collee et al., 1996).

Similarly, Cefixime, Cefotaxime, Ciprofloxacin, Cotrimoxazole, Ofloxacin were found sensitive to *Klebsiella* species while Amoxicillin was found to be resistant. *Klebsiella oxytoca* was sensitive to 100 percent nitrofurantoin. 50 percent of *Klebsiella pneumoniae* was sensitive to nitrofurantoin while others found to be resistant. Cefotaxime was found as second effective drug against the gram- negative bacteria and sensitivity was found to be 78.68 percent. In analysis, 59.83 percent and 70.08 percent of gram-negative bacteria were sensitive to Ciprofloxacin and Ofloxacin. Similarly, Resistivity of Ciprofloxacin and Ofloxacin against gram-negative bacteria was found to be 33.19 percent and 28.68 percent respectively. Among gram-positive bacteria, the

most effective drug was found out to be Gentamicin (55.56%) followed by Ceftriaxone (Sensitivity 44.44%). *Staphylococcus aureus* and *S. saprophyticus* was found to be variable in resistance pattern and indicates to developing resistivity to antibiotics. Antimicrobial resistance is a global problem. It is now generally accepted as major public health issue and has significant implication in health and patient care. Resistance to antimicrobial drugs is causing increasing morbidity and mortality from infectious diseases. The problem of the drug resistance to antimicrobial drug is more troublesome to developing countries.

Conclusion and Recommendations

A prospective study was conducted among patients suspected of UTI attending outpatients department and hospitalized patients from May 2019 to October 2019 at Subha Swostika Hospital Pvt. Ltd., Bardibas, Nepal. The infection rate was found higher in females than in males. The incidence of bacteriuria was found lesser in inpatients than in outpatients. But statistically it was found that there was no significant association of significant bacteriuria and hospitalization of patients. *E. coli* was found the most predominant organism followed by *Klebsiella pneumoniae* and *Klebsiella oxytoca* causing UTI. *S. aureus*, *Proteus mirabilis*, *Citrobacter freundii, and Staphylococcus saprophyticus* are other organisms isolated in less numbers. The patients with pyuria showed significant bacterial growth. The most effective antibiotic to overall gram-negative bacteria, *K. oxytoca and K. pneumoniae* was found out to be nitrofurantoin followed by Ceftriaxone. Gentamicin was also effective as Nitrofurantoin. The most effective antibiotic to overall grampositive bacteria was found out to be Gentamicin.

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A STUDY REPORT ON CONTENT MANAGEMENT SYSTEM

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Abstract

"Rajarshi Janak University, Department of Science and Technology" is a dynamic website that manages the complete academic content of the Department of Science and Technology. The website is designed to reflect all important academic activities like examinations, admissions, student information, and daily activities happening inside the DST (Department of Science and Technology). The basic objective for the development of this report is to come up with all necessary features of an online content management system. The main feature of this website is virtual tour, student biographical profiles, feedback, FAQ, online registration and other such interactive activities. The design outlay is simple and attractive with easy modifications possible in the near future. Overall, this website addresses all the important informational needs on a content management system.

Key words: Dynamic, Virtual tour, Feedback, Interactive, Informational need, Content management.

Introduction

Since the world has adopted the online system it has been based on three-tier architecture. It consists of client side, web server and database server in three different locations. There comes the need of content management system (CMS) website of any educational organization for the regular basis interaction and updating it. Additionally it provides the updated information.

The basic function of a CMS is to provide a way for non-technical web users to edit the content shown on their web pages. This editing functionality can be as simple as text-only editing

through a simple to use text editor, and yet can be sophisticated enough to control all aspects of the website as well. Such systems were once exclusive to very large organizations with a dedicated web page development team and large pockets.

However, the current scenario of Department of Science and Technology, Rajarshi Janak University has many problems including

1. General users or students aren't able to get the updated schedule and news.
2. The website isn't very interactive and informative.

Due to these problems, **DST** is not able to attract enough users. The system can be developed in PHP/MySQL and CSS. However, since it requires a data intensive computation, I have implemented the system in distributed architecture. It provides user the complete information through a single gateway using internet as a sole medium. Security mechanism is handled by the login method with session maintenance. Only the administrator can view back end of the system and update it whenever needed dynamically. The proposed website eradicates the current problems of the current website and provides numerous vital advantages as mentioned:

- Information about university events and holidays.
- Access to admission and examination schedule.
- Information about university calendar and events.
- Registered user can give comments regarding any activities.
- This can be used in educational institutions as well as in corporate world.
- Can be used anywhere any time as it is a web based application (user Location doesn't matter).
- Users-friendly interface requiring minimal learning and IT skills.
- Comprehensive background of management functions to facilitate the administrator about the system for updates and information management.

Review of Literature

Web Content Management Systems (WCMS) can be developed so that users can interact with the website, without the need of much knowledge or training in web coding languages or specific web editing software. Typically, the content of each web page can be stored in a database

(Tivy*et et al.*, 2005). When a web page is viewed by a user, the page is then populated with the correct data. There is a definite advantage to this as it means data can be reused elsewhere easily. The content being separated from the presentation makes the site much more flexible as design changes can be made without affecting any of the content. Integration for new designs is also easier to do as it may just be changing a CSS file, rather than every page (as essentially the content populates the same page). In some cases, a new style, or template, can be uploaded through the admin area of the WCMS, rather than uploading the file to the Web server manually. Some WCMSs also include the ability to store metadata for each page on the site. This can help with Search Engine Optimization (SEO), by allowing the site to be described on search engines how the administrators of the site want (Search Engine Watch, 2007).

In 2006, Gartner published "WCM and DAM: The Next Generation," which outlined key issues and trends in web development that have affected the development of web content management and digital asset management systems. Gartner found that WCM will continue to offer core functionality, such as workflow management, library services, and access to templates (Fowler, 2011). However, because of changing user expectations, businesses are beginning to create websites that are more targeted and focused to the customer. Therefore, high-end CMS packages are offering analytics to track user behavior, a means for feedback, and stronger integration with portal software. Previously advanced features, such as blogs and forums, are now standard.

The Forrester Wave: "Web Content Management for External Sites, Q3 2007" echoes Gartner's findings (Larman, 2001). In addition to addressing the need to deliver targeted information, the report also highlights the need for consistent branding. Internal employees who don't have programming skills want to be able to perform administrative functions such as create personalization rules or administer multiple sites. Both reports indicate that presenting content in different languages, reusing content, and having the ability to use metadata to tag content are vital for high-functioning web sites (Pierre-Alain, 2000).

The CMS market has changed significantly to address these trends. In particular, the enterprise content management market has been volatile. As ECM vendors have realized the importance of the web content management, many have rushed to acquire companies with strong track records

in this area. Consider IBM's acquisition of FileNet, SDL's acquisition of Tridion, or Oracle's recent acquisition of Stellent, which is one of the most feature-rich WCM packages on the market. Major ECM vendors have recognized that an ECM suite is not complete without strong WCM. In response, WCM products not associated with an ECM are quickly adding more features to stay competitive. Because commercial ECMs can be quite expensive (ranging from $100K to over $1M, depending on options purchased), standalone WCMs are a viable option, particularly for small to mid-sized businesses.

Objectives of the Study

The basic objective for the development of this report is to come up with all necessary features of an online content management system. The static information representation misses out many important aspects like daily updates, Frequently Asked Questions (FAQ), online registration and student feedbacks which are vital in the current scenario. This website fulfills all these objectives of online Dynamic Information Management system. It enriches the informational needs of Rajarshi Janak University, Department of Science and Technology.

It is an automatic system which provides the user the complete information about the school. The goals of system are:

- To provide anytime anywhere service for the user with internet access.
- To promote the school on the internet.

Secondary objective of this project is to do some research in the Content Management System and find out facts related to vital information, i.e. access and information management. This project is a research based activity that is undertaken to deploy the current need of RajarshiJanak University for Department of Science and Technology and enhance it's capabilities by assimilating the future needs and current development in the web technology.

Used Tools and Platform

Software Specification

- **Front-end Tool: - PHP 7.4.0**

One having knowledge of HTML can embed PHP code in regular HTML pages, and execute the embedded PHP code when the page is requested (www.w3schools.com). These embedded PHP commands are enclosed within special start and end tags (www.php.net).

- User friendly
- Low Cost solution
- GUI feature
- Better designing aspects

- **Back-end Tool: - MYSQL 8.0.18**

It is a free version application that lets us to store data and tables in database server and to insert and retrieve information using the SQL language (www.wampserver.com).

- Portability
- Security
- Quality

Platform

- **Windows platform like: Windows 7, 10.**

Windows is a hugely popular OS - and not without reason. 7, 10 – they're all examples of the Windows operating system, the almost ubiquitous user interface across the majority of offices, banks and other major businesses throughout North America, Europe, Asia and Australia. The Windows operating system is designed to be compatible with the largest combination of PC hardware. The vast majority of software available to purchase is designed to run primarily with Windows.

Hardware specification

- Intel Pentium and Celeron class processor
- Processor speed – 1.2 GHz or above
- RAM – 512 MB

- Mouse, keyboard and monitor- normal

Future Scope

This can be used in educational institutions as well as in corporate world.
Can be used anywhere any time as it is a web based application (user location doesn't matter).
No restriction that user has to be a regular student or related person when logged in.

Conclusion

The CMS website is setting Business College on the Internet, allowing the users to access, and go through virtual catalog of the services online. The System is developed using PHP and SQL fully meets the objectives of the system for which it has been developed.

The system has reached a steady state where all bugs have been eliminated. The system is operated at a high level of efficiency and all the users associated with the system understand its advantage. The system solves the problem of the existing system through customer behavior recommendation.

Various practical aspects of web based database accesses and few but very critical things of webpage designing using database and application were learnt in this project, contributing more confidence for the professional career development in the related field.

Further Enhancement of the Report

Everything that is made has some or the other things to be added make it better than revolutions.

The report "CMS website for Department of Science and Technology, Rajarshi Janak University", it has been tried to develop a robust and fault free system, still enough flexibility has been provided for further enhancements and modifications. For enhancement with the project to be done design changes, coding changes.

- Since the data is retrieved from tables using the codes. And if the coding system is changed then the system needs to be redesigned.

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EFFECTS AND EPIDEMIOLOGY OF CORONA-VIRUSES

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Abstract

The general objective of this study is to analyze effects of virus infection on host cell and epidemiology of corona-viruses. More than 80 percent of patients have mild disease and will recover. In about 14 percent of cases, the virus causes severe disease, including pneumonia and shortness of breath. Coronavirus 229E and related group I viruses have sometimes been isolated in human diploid cell lines, whereas many other human coronaviruses, including OC43, has required cell organ culture system for isolation. Secondary data have been used for this study from books, journals, research articles and various websites. Descriptive and analytical methods have been adopted for this study. Strict attention to good isolation and infection control practices and identification and management of exposed persons (contacts), stopped human-to-human spread of the virus within 4 months from the start of its global spread. The overall fatality rate was ~10 percent but approached 50 percent in elderly patients and those with underlying illness.

Key words: Isolation, hepatitis, coronavirus, torovirus, Berne virus, pigs, sars, transmissible

Introduction

The first corona-virus isolations were infectious bronchitis virus in the 1930s and mouse hepatitis virus and transmissible gastroenteritis virus in pigs during 1940s. The features of these viruses were first noted in electron microscopic studies of infectious bronchitis virus and later in electron microscopic studies of a number of isolates from humans. These features were considered crownlike in appearance; hence, the name coronavirus. These viruses are now designated as members of the coronavirus genus in the family Coronaviridae. The first member of the other genus of the family Coronaviridae, torovirus, was isolated from a horse with diarrheal disease in 1972 and named Berne virus. Coronaviruses, however, are associated with

economically important diseases in cattle, poultry, and pigs and serious disease in cats. They are also recognized as second only to rhinoviruses as a cause of the common cold in humans. In 2003, an outbreak of a new disease, severe acute respiratory syndrome (SARS), was shown to be caused by a novel coronavirus, SARS-CoV; this outbreak generated renewed interest in efforts to understand coronaviruses, the diseases they cause, and treatment and prevention strategies. In 2012 another new strain of corona virus MERS CoV outbreak in Middle East were found. In December 2019, a new strain evolved named as SARS CoV-2 causing pandemic in human subject and still continuing in 2020. Since the SARS outbreak in 2002, a number of new coronaviruses have been identified, including ones from bats and humans and additional coronaviruses are likely to be identified in the future (Bushnell & Brandly , 1933).

SARS CoV-2 in December 2019

- More than 80 percent of patients have mild disease and will recover. In about 14 percent of cases, the virus causes severe disease, including pneumonia and shortness of breath.
- And about 5 percent of patients have critical disease including respiratory failure, septic shock and multi-organ failure.
- In 2 percent of reported cases, the virus is fatal, and the risk of death increases in older age.
- Relatively few cases among children. More research is needed to understand why.

Nomenclature of Virus and Disease

- The name of disease caused by novel corona virus (New Coronavirus Pneumonia -NCP and Wuhan pneumonia as initial name) is finalized with consensus proposed by WHO as corona virus disease 2019 (COVID-19) on February 11, 2020.
- The name of this virus is still to decide, at present there are three names including two proposed names and one initial name:
  1. 2019-nCoV (Initial name)
  2. COVID-19 Virus (proposed by WHO)
  3. SARS-CoV-2 (proposed by CSG-Corona Study Group) and then approved by WHO.

Objectives of the Study

The general objective of this study is to analyze effects of virus infection on host cell and epidemiology of corona-viruses. The specific objectives are as follows:

- To classify SARS CoV-2 in December 2019,
- To analyze nomenclature of virus and disease,
- To epidemiolize about the Severe Acute Respiratory Syndrome, and
- To discuss features of SARS CoV-2.

Significance of the Study

Although coronaviruses of birds and many other animal species can readily be isolated from infected tissues, isolation of human coronaviruses from infected individuals has often been unsuccessful. Coronavirus 229E and related group I viruses have sometimes been isolated in human diploid cell lines, whereas many other human coronaviruses, including OC43, have required cell organ culture system for isolation. A human rhabdomyosarcoma cell line (RD cells) does support cell culture-adapted OC43 and 229E. SARS-CoV was isolated in fetal rhesus kidney cells and Vero cells, and the recently described coronavirus, NL63, was isolated in tertiary monkey kidney cells, LLC-MK2 cells, or Vero cells. Laboratory passaged HCoV-OC43 and/or 229E have been shown to replicate in various cells, including the HRT-18 line of human rectal tumor cells, human rhabdomyosarcoma cells, human macrophages, primary human fetal neural cells, human type II pneumocytes, and human neural cell lines.Electron microscopic examination of isolation material contributed to the identification and characterization of the first and many subsequent coronaviruses, including SARS-CoV. Electron microscopy has sometimes also been used to identify coronaviruses in clinical specimens; however, because other particles in clinical specimens can look like coronavirus, identification of such particles does not confirm infection.

Materials and Methods

Secondary data have been used for this study from books, journals, research articles and various websites. Descriptive and analytical methods have been adopted for this study.

Effects of Virus Infection on Host Cells

Coronavirus infection induces a variety of cytopathic effects (CPEs), depending on the virus strains and host cells. Some coronaviruses (e.g., MHV, BCoV, IBV, or SARS-CoV) cause cell fusion. The mechanism of CPE may be attributed to a variety of causes, including inhibition of translation of cellular proteins and of transcription of a subset of cellular genes. MHV also induces apoptosis, which is mediated through the E protein. In addition, many SARS-CoV proteins can affect cellular signaling pathways, resulting in the derangement of cellular functions and enhanced cytokine and chemokine expression; for example, 7a and N proteins of SARS-CoV and nsp1 of MHV can block cell cycle progression and inhibit cellular protein synthesis. The 3a protein of SARS-CoV has been shown to activate the expression of fibrinogen gene, a property relevant to the capability of SARS-CoV to induce fibrosis. Persistent coronavirus infection readily occurs in tissue culture cells. Generally, after the initial cytocidal infection, virus-carrier cultures arise in which only a fraction of the cells produce infectious virus at any time, and virus production continues for months. Cells in persistently infected cultures are resistant to superinfection with wild-type virus, and various replication-defective mutants are frequently selected from these cultures. These mutant viruses may modulate virus dissemination in culture. HCoV-229E has been demonstrated to establish persistent infection in human oligodendrocyte and glial cell lines.Although most coronavirus infections in animals are acute and self-limited, persistent coronavirus infection in vivo can occur in immunocompromised hosts, such as nude or newborn mice (Carstens, 2010).

Corona-virus Genetics

Like most RNA viruses, coronaviruses mutate at a high frequency because of the high error frequencies of RNA polymerases. Multiple types of mutants have been isolated.Temperature-sensitive (ts) MHV mutants have been classified into at least seven complementation groups, five of which cannot synthesize RNA at the non-permissive temperature. All of the RNA-negative mutations are mapped to locations within gene 1. The RNA-positive mutants have defects in the genes encoding the S or N structural proteins. Some ts mutants differ in virulence from wild-type

virus in animal infections. SARS CoV-2 contains Orf 1a, Orf 1ab, s, e, m and n genes as shown in figure below.

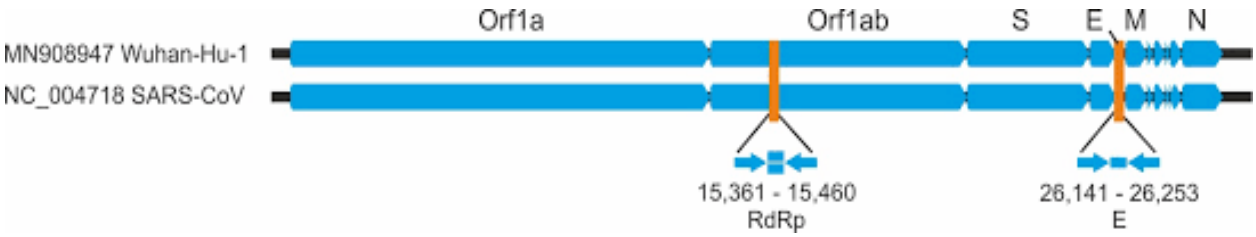

Figure1: Genome organization of SARS CoV-2 (Wuhan-Hu-1former name of SARS-CoV-2)

Features of SARS CoV-2

1. 2019-nCoV is the 7th member of family corona viruses that infect humans others being SARS-CoV, MERS-CoV and four viruses 229E, OC43, NL63 and HKU1 common cold symptoms.
2. Cell entry Receptor for this virus is ACE2 where spike protein of virus surface gets attached and gets fused with cell membrane similar to SARS-CoV.
3. The genome of this virus strains showed 96 percent identical to that of bat corona virus in one study and another study showed to be 86.9 percent identical to the bat SARS like corona virus but these 2019-nCoV strains are well conserved within themselves.
4. CPE is observed in human airway epithelial cells after 96 hours and after 6 days in Vero E6 and Huh-7 cell lines, hence asymptomatic for upto 5 days (mean incubation period 5.2).
5. Epidemic doubled in size every 7.4 days and basic reproductive number was estimated to be 2.2 and hence human to human transmission has occurred among close contacts
6. Epidemics are already growing exponentially in multiple major cities of China with a lag time behind the Wuhan outbreak of about 1–2 weeks

Epidemiology of Severe Acute Respiratory Syndrome

Multiple serologic studies demonstrated that SARS-CoV had not circulated to any significant extent in humans prior to the outbreak in 2002 and 2003. Although animals were the original source of SARS, its global spread occurred by human-to-human transmission. Transmission appeared to occur through close contact (i.e., direct person-to-person contact, fomites, or infectious droplets and probably aerosols in some instances). Because transmission usually only occurred after onset of illness and most efficiently after the patient was sufficiently ill to be hospitalized, most spread occurred in households and health care settings but infrequently in other settings. The other cases occurred in southern China and resulted from exposure in the community, presumably to SARS-CoV-infected animals from wild animal markets. Although a number of wild animals have been tested for evidence of SARS-like CoV infections, only one, the horseshoe bat, has had a pattern of infection consistent with its being a natural reservoir for SARS-CoV infection. Sequences from several distinct SARS-like coronaviruses have been amplified from horseshoe bats from Hong Kong and several provinces in China, and 30 percent to 85 percent of this species of bats had antibodies to a SARS-like coronavirus. N gene NT sequences for three bat SARS-like coronaviruses had 3 percent to 6 percent differences and a similar level of difference between each of these viruses and SARS-CoV (Estola, 1970).

Human SARS-CoV Infections

In contrast to the mild illness usually associated with human coronavirus infections, SARS-CoV infection of humans nearly always resulted in a serious lower respiratory tract illness that required hospitalization, often in an intensive care unit (up to 20% of infections). The overall fatality rate was ~10 percent but approached 50 percent in elderly patients and those with underlying illness. Although not diagnostic, the clinical presentation of SARS was often different from that seen with other viral respiratory infections. Illness usually had onset at 4 to 6 days, sometimes as short as 2 days and rarely longer than 10 days after exposure, for SARS CoV-2 the onset of disease is between 5-7 days, remains for 21 days and there after recovers and was characterized by systemic symptoms such as fever, malaise, and myalgias, but usually not upper respiratory tract symptoms such as rhinorrhea, sore throat, and nasal congestion. However, a

minority of patients, less than 25 percent, did develop upper respiratory tract symptoms. The first respiratory tract symptoms (usually a nonproductive cough and shortness of breath) developed several days after onset of systemic symptoms. Some patients, <25% initially but up to 70 percent during the course of the illness, develop diarrhea. Most patients developed abnormal liver function tests (70%-90%) and lymphopenia (70%-95%), with a substantial drop in both CD4 and CD8 T cells. Patients who failed to resolve their illness often had progressive respiratory failure that led to death within weeks, but sometimes months, after illness onset. Severe illness has been associated with older age, presence of underlying chronic illness, and some laboratory test results, including higher values for liver enzymes, lower levels of lymphocytes and platelet counts, and higher titers of virus, or viral RNA, in clinical specimens. Asymptomatic or mild illness was uncommon, as illustrated by studies of exposed health care workers in which less than 1 percent of those without a SARS-like illness had serologic evidence of infection. Children had a less severe illness than adults, and like other infections, the expected signs and symptoms were sometimes obscured or not present in elderly patients or those with underlying chronic illnesses.Most survivors of SARS-CoV infection achieve full recovery, although pulmonary function abnormalities may take months to subside. Some, however, had persistent decreases in pulmonary function (Fan, Zhao, Shi & Zhou, 2019).

SARS-CoV causes the most severe disease of any human coronavirus. The virus infects both upper airway and alveolar epithelial cells, resulting in lung injury. Virus or viral products are also detected in other organs, such as the kidney, liver, and small intestine. Consistent with the latter, virus is also detected in stool. Although the lung is recognized as the organ most severely affected by SARS-CoV, the exact mechanism of lung injury is controversial. Levels of infectious virus appear to be diminished as clinical disease worsens. Like mice with MHV mediated demyelination, large numbers of macrophages are detected in the infected lung, consistent with the notion that lung destruction occurs during the process of virus clearance. However, this conclusion must be tempered because samples from live patients were obtained from nasopharyngeal aspirates, not from the lungs or other organs. Thus, it is not known whether virus titers in the lung also diminish as virus is cleared. Furthermore, virus titers obtained from patients at autopsy do not provide longitudinal information about the relationship between virus

load and disease. SARS-CoV infects macrophages and dendritic cells, and it causes an abortive infection in these cells. Several pro-inflammatory cytokines and chemokines, such as IP-10, MCP-1, MIP-1, RANTES and MCP-2, TNF-Î, and IL-6 are expressed by infected dendritic cells; many of these molecules are also expressed at elevated levels in the serum of infected patients. Lymphopenia and neutrophilia are detected in infected patients. SARS-CoV is detected in spleens and lymphoid tissue at autopsy and was detected in T and B cells in a single study, consistent with direct virus destruction of lymphocytes. However, because lymphocyte infection is not routinely detected in infected patients, lymphopenia is likely to be primarily cytokine-driven. A potentially confounding factor is that many patients with SARS in the 2003 epidemic were treated with corticosteroids, and treatment with steroids often results in lymphopenia.

A striking feature of SARS-CoV, when compared to the other coronaviruses, is the large number of genes encoding putative nonstructural proteins interspersed with structural genes at the 3 end of the genome. The function of these proteins is unknown, but they may contribute to severe disease in infected patients. The genetic disruption of these genes does not affect the ability of the virus to grow in tissue culture cells, showing that they are nonessential for viral replication.A similar age dependence was observed during the 2003 epidemic, with more severe disease noted in those older than 60 years of age.

Diagnosis

Most human coronavirus infections are not diagnosed because the upper respiratory disease is relatively mild and self-limited, and no drugs are available to provide more than symptomatic relief. In humans, as with other respiratory virus infections, a coronavirus infection cannot be diagnosed simply by clinical signs or symptoms but requires a laboratory-based diagnosis. Laboratory diagnostics are also required to diagnose infections in animals. Most efforts to diagnose human coronavirus infections have been for clinical or epidemiologic studies of acute respiratory tract infections, and testing is usually done in research laboratories. Coronavirus infections in animals and humans were initially detected by isolation, electron microscopy, and serologic studies and later by antigen detection and PCR-based assays. To date, serologic assays applied to acute and convalescent-phase serum specimens have been the most sensitive way to

detect human coronavirus infection. The ability to detect infection by reverse transcriptase-polymerase chain reaction (RT-PCR) as compared to serologic assays is yet to be determined but will depend, in part, on the timing and quality of specimens available for testing and the type of assays used. Similar to other respiratory viruses, the human respiratory coronaviruses are most often detected in respiratory secretions early in the illness. Several days after the onset of illness, the titer of virus begins to decrease. SARS presents a different diagnostic situation. The decision to do laboratory testing should be considered carefully because a positive test will guide patient management decisions and lead to a public health response with global implications. The likelihood that a patient will have SARS and require testing, however, can vary from essentially zero to highly likely, and testing should only be considered when, based on likelihood of an exposure, timing of the exposure, and clinical features of the illness, infection is plausible.

For SARS, often a combination of serologic and RT-PCR assays was used to detect and confirm infection. Whereas RT-PCR provided the best way to make an early diagnosis, serologic assays usually provided the best way to confirm or rule out infection. Serum proved to be the best specimen to detect viral RNA during the first week of illness, while stool and respiratory specimens were the best specimens during the second week of illness. In one study, less than 50 percent of respiratory and stool specimens were positive the first week but increased to 60 percent to 70 percent during the second and third weeks of illness. With very sensitive PCR assays (e.g., a nested or real-time PCR assay) and RNA extraction procedures that increased the amount of specimen used in the assay, the positivity rate in respiratory specimens increased from less than 40 percent to more than 80 percent during the second and third days of illness. SARS antibodies have been detected as early as 6 days after onset of illness, often by 14 days into the illness, but sometimes not until 4 weeks after onset of illness. Because serum specimens from persons not infected with SARS during the 2002, 2003 outbreak have rarely tested positive for SARS-CoV antibodies, a single serum specimen positive for SARS-CoV antibodies was usually considered diagnostic for infection, and a negative test on a serum specimen collected late in the illness (28 days or later after onset of illness) could be used to rule out SARS-CoV infection. Because diagnosis of a re-emergence of SARS-CoV will have substantial public health, social, and economic impact, a diagnosis of SARS should be confirmed by another laboratory experienced in SARS-CoV diagnostics.

Treatment and Prevention

- **Treatment**

At present, there is no antiviral drug for human coronavirus infections. The molecular biology of coronavirus infection, however, suggests a number of potential targets for antiviral drugs, including viral RNA-dependent RNA polymerase, virus-encoded proteases, the process for coronavirus budding or release from infected cells, cellular receptors for virus binding and infection, and the viral spike glycoprotein that mediates binding to and entry into the cell. Early during the outbreak, ribavirin, high-dose steroids, and various mechanical ventilation and oxygenation regimens became the standard of care for treating SARS patients. It was reasoned that ribavirin could treat the infection, and steroids would ameliorate immune-mediated damage to infected tissue. Later in the outbreak, based on their ability to inhibit SARS-CoV replication in vitro, inteferon-alpha, SARS convalescent-phase immune globulin, and lopinavir plus ritonavir were used to treat patients. Unfortunately, despite large numbers of patients being treated, the data on responses to these treatments do not indicate which, if any, were effective. Similarly, it is not clear if high-dose steroid treatment improved the course of the illness, and their use has been associated with long-term complications such as aseptic necrosis of the femoral head and psychological symptoms. Subsequent to the outbreak, a wide range of antiviral drugs have been developed and/or evaluated for their ability to inhibit SARS replication in vitro. Drugs that have been shown to have in vitro anti-SARS-CoV activity include protease inhibitors that are licensed for treatment of HIV, such as lopinavir, ritonavir, and nelfinavir; monoclonal antibodies that inhibit SARS-CoV binding to cells; peptides from the heptad repeat regions of the virus that inhibit fusion; and small interfering RNAs. If SARS re-emerges, in vitro and animal model studies of antiviral drugs and data from studies of acute respiratory distress syndrome from other causes can be used to guide treatment.

- **Prevention**

No vaccines are available to prevent human coronavirus infection, but vaccines against common veterinary coronaviruses, such as IBV and CCoV, are routinely used to prevent serious disease in young animals, and efforts are ongoing to improve these vaccines. In addition, a variety of SARS vaccines, including inactivated whole virus, expressed proteins, and live virus vectored vaccines,

have been developed and shown to induce neutralizing antibodies in vitro and to decrease virus replication and inflammation in animal models. Small-scale safety and efficacy trials have begun for a DNA vaccine and a whole virus inactivated vaccine. The biology of coronavirus infections suggests challenges in developing effective coronavirus vaccines. Because natural infection does not prevent either reinfection or disease, an effective vaccine would appear to need to improve on immunity induced by natural infection.

Conclusion

Despite a lack of vaccines and antiviral drugs, there are ways to prevent coronavirus infections (i.e., good infection control practices). This was demonstrated unequivocally during the SARS-CoV outbreak and this current outbreak of 2019 and 2020. Strict attention to good isolation and infection control practices and identification and management of exposed persons (contacts), stopped human-to-human spread of the virus within 4 months from the start of its global spread. The success in stopping the spread of SARS can be attributed in part to its pattern of transmission and in part to the ability of the global public health, health care, and scientific communities and the governments and public to work together effectively to control spread. The cases of laboratory-acquired SARS-CoV and the subsequent transmission of disease to others after one such case reinforce the importance of strict attention to safe laboratory practices. These practices include handling the virus in the appropriate type of facility and under the appropriate standardized operating procedures, staff training, and medical surveillance programs for staff.Coronaviruses are unique among RNA viruses in many aspects of their viral structure and replication. However, this group of viruses has mainly been considered in the context of animal pathogens, relatively mild human infections, and as experimental models for chronic human diseases. The recent advances of methodology available to coronavirus research will undoubtedly hasten its progress. The past success and current success in controlling SARS outbreaks will offer a lesson to the worldwide public health community for future emerging infectious diseases.

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CORRELATION OF OXIDATIVE STRESS AND INFLAMMATORY MARKERS WITH STANDARD MARKERS OF ACUTE MYOCARDIAL INFARCTION IN PATIENTS WITH ACUTE CHEST PAIN

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Abstract

This study aims to evaluate the efficacy of the oxidative stress markers viz., Oxidized LDL, Ischemia modified albumin (IMA) and inflammatory marker-Matrix metalloproteinase 9 (MMP 9) with that of established cardiac markers- CK MB and Troponin T in the diagnosis of acute myocardial infarction. The general objective of this study is to analyze oxidative stress and inflammatory markers with standard markers of acute myocardial infarction in patients with acute chest pain. This study is a case control study involving 90 subjects of either sex of 20 to 65 years, presented with chest pain for the first time. Data were analyzed using IBM SPSS Statistics version 17. The parametric data were presented as Mean ± SD and non-parametric data were presented as median and inter-quartile range. 90 patients, presented with complain of chest pain for the first time, were divided into 2 groups: 45 patients with acute myocardial infarction (AMI) and 45 age and sex matched patients without AMI as control. Serum troponin T, CK-MB, were determined by ECLIA, IMA and oxidized LDL spectrophotometrically and MMP-9 by ELISA. Oxidized LDL and IMA were significantly elevated in MI compared to control. However, an increase in MMP 9 in AMI patients was not statistically significant. Both specificity and sensitivity of newer markers were lower than standard markers i.e. CK MB and Troponin T. There was a significant positive correlation between

standard markers and oxidized LDL ($p < 0.001$) and an insignificant positive correlation with other newer markers.

Key words: Acute Myocardial Infarction, Ischemia Modified Albumin, Matrix Metalloproteinase9, Oxidized low density lipoproteins, Myocardial infarction, Cardiovascular, Procoagulant.

Introduction

Cardiovascular diseases form a major share in the incidence of non-communicable diseases. Current scenario puts this as one of the leading causes of mortality globally. Coronary artery diseases (CAD) is influenced by a complex interplay of procoagulant, anticoagulant, fibrinolytic, endothelial damage or dysfunction and inflammatory processes (Naghavi et al., 2003, pp.1664-1672). The traditional theory for causation of CAD is due to relationship between genetic and environmental, modifiable and non- modifiable risk factors setting into motion an inflammatory cascade of monocyte migration, lipid oxidation and atheromatous plaque formation (Berenson et al.,1998, pp.1650-1656). Acute coronary syndrome (ACS) encompasses a broad and heterogeneous population ranging from a patient with atypical chest discomfort, nonspecific electrocardiographic changes, and abnormal cardiac biomarkers to the patient with a large ST-segment elevation, myocardial infarction (MI), and cardiogenic shock (Benjamin,2010, p.14). The most common event of myocardial ischemia is oxidation of unsaturated fatty acids of the cell membrane which may induce proinflammatory pathways such as activation of matrix metalloproteinase, vascular smooth muscle cell proliferation and endothelial death or dysfunction and lipid peroxidation (Blake et al., 1987, pp.371–385). ROS can cause reversible or irreversible modifications of cardiac myofibrillar proteins and serum proteins like albumin and LDL (Hoek et al., 2000, pp.541–548). It damages the metal binding site on the

amino terminus of albumin and lower metal binding capacity for cobalt. The level of Ischaemia modified albumin (IMA) in the blood increases within minutes of the onset of ischemia and return to normal within 6–12 hours. It can detect acute ischemia prior to necrosis. LDL is the most vulnerable target of oxidation, and oxidative modification of LDL is a key step in the initiation and progression of atherosclerosis. Oxidized LDL, a pro-inflammatory mediator induces local inflammation in the atherosclerotic plaque leading to endothelial dysfunction, plaque expansion through foam cell formation, plaque destabilization, and ultimately plaque rupture leading to myocardial infarction. Matrix metalloproteinase 9 (MMP 9), a gelatinase secreted by inflammatory cells, macrophages has shown to play a role in the pathogenesis of atherosclerosis and MI (Raitakari *et al.*, 2003, pp. 2277–2283). Although recent biomarkers for MI: Troponin I or T and CK-MB, being tissue specific and clinically sensitive, have greatly improved the diagnosis and quickened the treatment, there is still scope for advancement, particularly in the area of early detection (Ahmad et al.,2012, pp.1980-1000). Multiple markers assess diverse pathophysiological mechanisms in myocardial ischemia hence our study aims to correlate serum level of IMA and oxidized LDL, the markers of oxidative stress and MMP9, a proinflammatory protein with the gold standard markers Troponin T (TnT) and CK MB of acute myocardial Infarction.

Objectives of the Study

The general objective of this study is to analyze oxidative stress and inflammatory markers with standard markers of acute myocardial infarction in patients with acute chest pain. The specific objectives are as follows:

- To estimate the serum levels of Troponin T and CK-MB in subjects with normal and abnormal ECG findings

- To determine the markers of oxidative stress (Oxidized LDL, Ischemia modified albumin) and inflammation(Matrix metalloproteinase9) in the above cases
- To correlate the oxidative stress and inflammatory markers with cardiac markers

Significance of the Study

Biomarkers are not used as stand-alone tests despite of a large number of existing and novel biomarkers for cardiovascular diseases; therefore a multi-biomarker strategy is the most useful for clinical decision-making. As in most patients have multiple processes occurring simultaneously and these biomarkers can therefore help to detect distinct points in the pathogenesis of AMI

Materials and Methods

This study is a case control study involving 90 subjects of either sex of 20 to 65 years, presented with chest pain for the first time. Patients with previous history of myocardial infarction and malignancy, patients on statins, known case of liver and kidney diseases were excluded. Selected subjects were diagnosed and classified as control and MI depending upon the assessment as per the clinical signs and symptoms, ECG finding and serum level of TnT at the time of admission. This study has based on primary data and also descriptive and analytical method. Informed consent was taken from all the subjects and the study was approved by the institutional ethical and research committee. 5ml of whole blood was collected in red cap vacutainer tube serum separated was used for the estimation of albumin, CKMB, troponin T, IMA, MMP9, and oxidized LDL. Estimation of serum Troponin T was done by ECLIA and that of CK-MB was done by immunological UV kinetic method (Morrow *et al.,* 2007, pp. 552–574) Ischemia modified albumin was determined by cobalt albumin binding method (Bar *et al.,* 2001, pp. 42–47). Adjusted Ischemia Modified Albumin (AIMA) was calculated by multiplying concentration of albumin with the absorbance of IMA.

MMP-9 was assayed by ELISA (Minematsu et al., 2001, pp116–119.) and that of oxidized LDL by precipitation method (Tsimikas et al., 2001, pp 95–100).

Data were analyzed using IBM SPSS Statistics version 17. The parametric data were presented as Mean ± SD and non-parametric data were presented as median and interquartile range. Student independent‘t’ test was used to determine the significance between variables. $p < 0.05$ was considered statistically significant.

Results

The association of analytical markers with clinical outcome was compared with Chi-square test. Results of cTnT, CKMB, oxdLDL, MMP9, AdIMA and IMA were analyzed for clinical sensitivity, specificity, positive predictive value (PPV), negative predictive value (NPV), positive likelihood ratio (LR+) and negative likelihood ratio (LR-). ROC Curve was generated for individual analysis to find out the cutoff values.

Table.1: Comparison of Study Parameters among the Groups

Parameter	Control(N=45)	Cases(N=45)	P value
Troponin T(pg/ml)	8.35±3.04	82.13±78.50	<0.001*
CKMB(IU/L)	14.17±5.6	40.2±20.3	<0.001*
MMP9(pg/ml)	11932	17970*	0.200
OxLDL(µmol/L)	68.8±19.3	95.01±16.02	<0.001*

IMA(Abs unit)	0.55± 0.21	0.746±0.34	<0.001*
AIMA (Abs.unit)	0.52±0.2	0.707±0.4	<0.001*

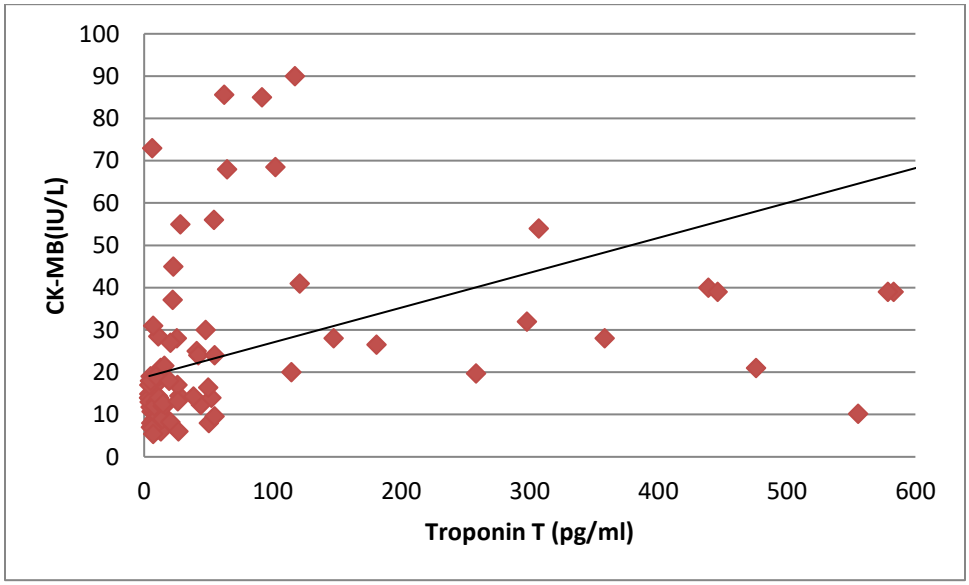
Source: Self calculation

Data expressed as mean± standard deviation and p<0.05 was considered significant. *N* = sample size.

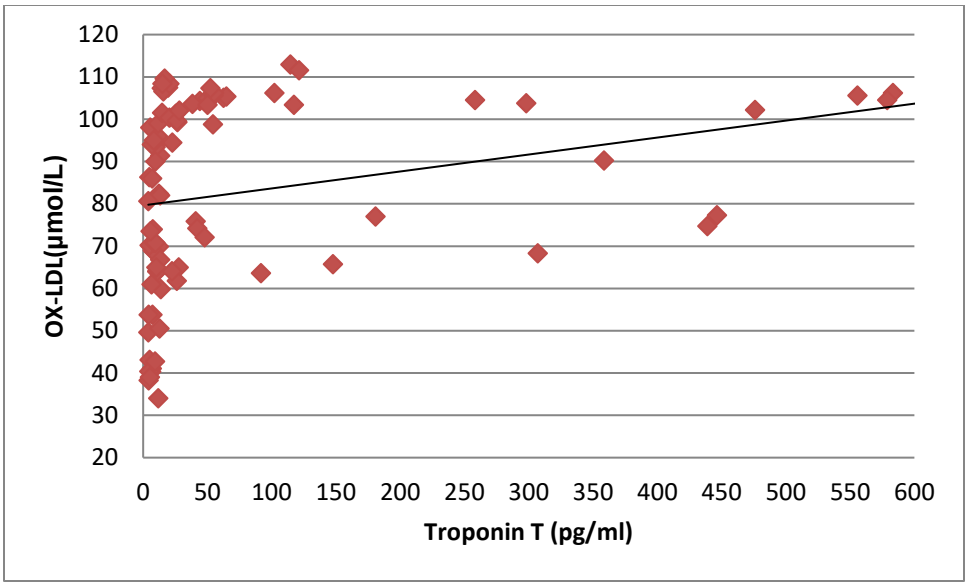
Table: 2 -Correlation Coefficients (*r*) of TroponinT with Study Parameters

Variable	r-value	p-value
MMP9	0.060	0.577
Oxd LDL	0.451*	0.001*
IMA	0.133	0.213
ADIMA	0.100	0.350
CK-MB	0.526*	0.001*

Source: Self calculation



Source: Table-2



Source: Table-2

Table-3: Correlation Coefficients (*r*) of CK-MB with Study Parameter

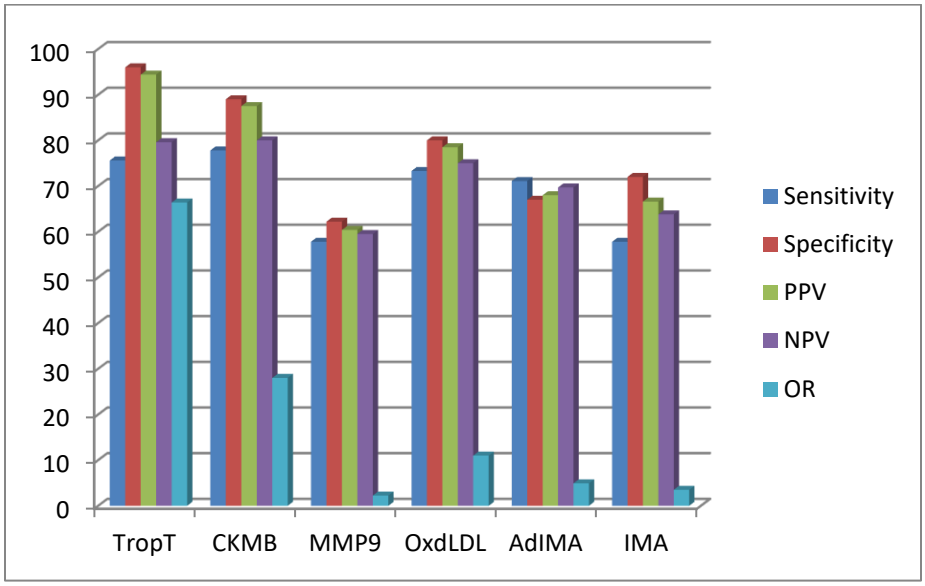
Variables	r-value	P-value
MMP9	0.108	0.313
Oxd LDL	0.432	0.001*
IMA	0.100	0.35
ADIMA	0.046	0.665

Source: Self calculation

Table-4: Efficiency of serum TropT, CKMB, MMP9, OxdLDL, IMA and Adjusted IMA (AdIMA) as marker of cardiac ischemia

	TropT	CKMB	MMP9	OxdLDL	AdIMA	IMA
Sensitivity	75.6	77.8	57.8	73.3	71.1	57.8
Specificity	96	89	62.2	80	67	72
PPV	94.4	87.5	60.4	78.5	68	66.6
NPV	79.6	80	59.5	75	69.7	63.8
OR	66.4	28	2.25	11	4.92	3.5
ROC AUC	0.96	0.91	0.567	0.86	0.72	0.651
Cut off	14(pg/ml)	25.5(IU/L)	14398(Pg/ml)	90.1I(µmol/l)	0.58(ABSU)	0.57(ABSU)
LR+	18.9	7	1.5	3.66	2.1	2
LR-	0.21	0.25	0.67	0.32	0.55	0.42

Source: Self Calculation


100
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TropT
CKMB
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Sensitivity
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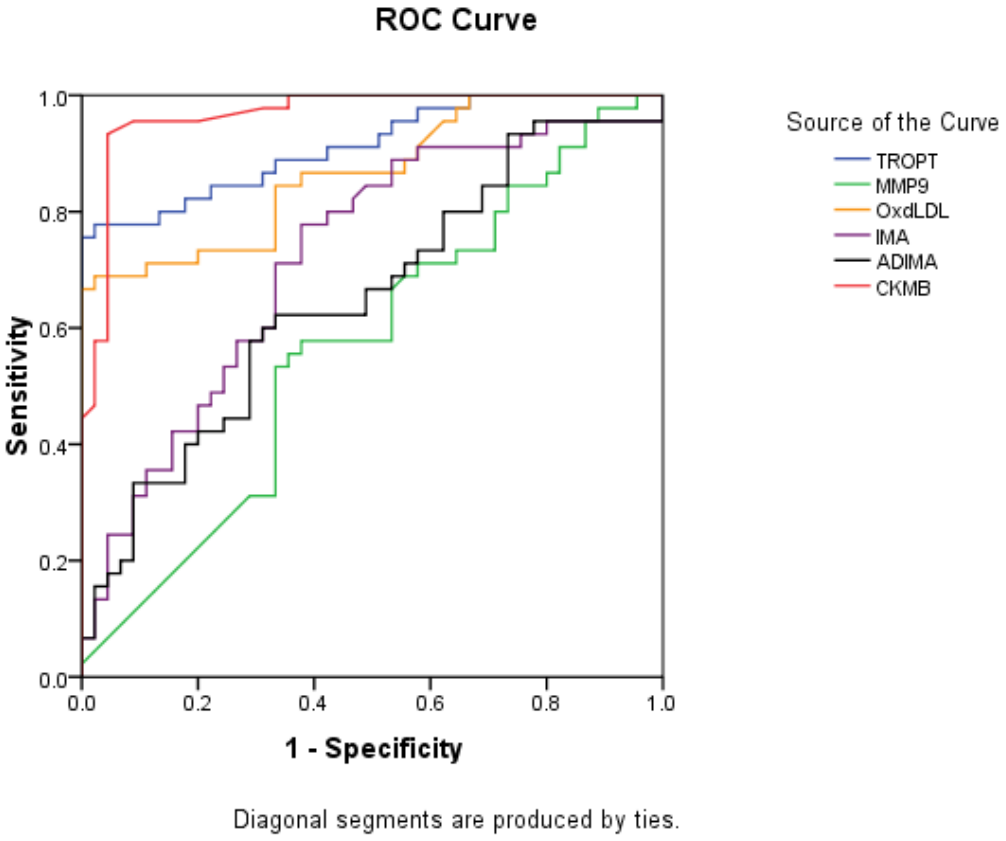
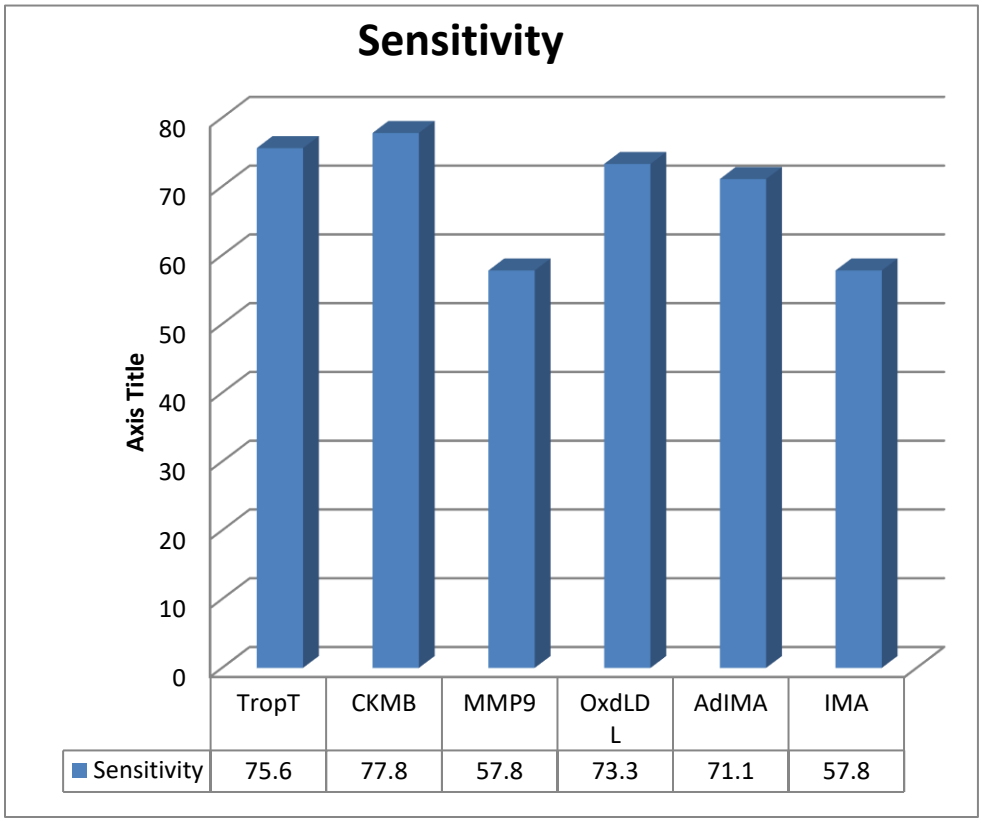

ROC Curve
Sensitivity
1 - Specificity
0.0
0.2
0.4
0.6
0.8
1.0
Source of the Curve
TROPT
MMP9
OxdLDL
IMA
ADIMA
CKMB
Diagonal segments are produced by ties.


Sensitivity
Axis Title
80
70
60
50
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30
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10
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TropT
CKMB
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OxdLDL
AdIMA
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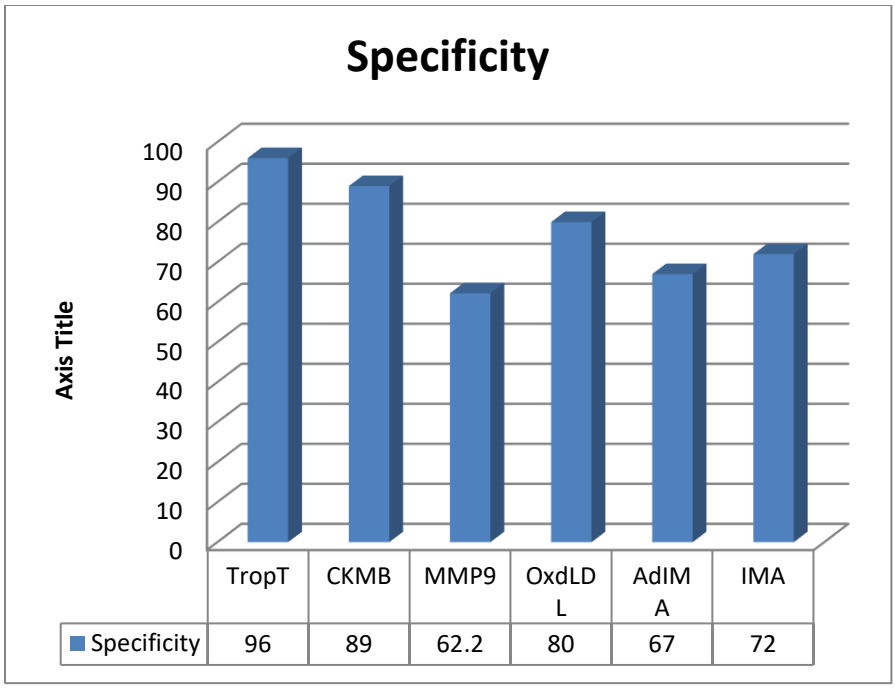
75.6
77.8
57.8
73.3
71.1
57.8



Serum troponin T and CK MB was significantly higher ($p < 0.001$) in MI patients compared to control. Oxidized LDL values were noticeably elevated in patients compared to controls ($p < 0.001$). Further, a statistically significant increase in IMA and AIMA was observed in MI patients compared to controls. On the other hand, median values of MMP-9 did not differ significantly between the groups (Table1). IMA, ADIMA, MMP-9 did not show any statistical significance correlation with gold standard markers CK MB and TnT (Tables 2 and 3). Conversely, oxidized LDL showed a positive correlation (r value 0.452, 0.432) and $p < 0.001$ with TroponinT and CKMB respectively (Tables 2 and 3). The sensitivity of biomarkers in the descending order was CK MB, Troponin T, oxidized LDL, Ad IMA, IMA, MMP-9. The specificity of the cardiac markers in the descending order was TnT, CK MB, oxidized LDL, IMA, Ad IMA, MMP-9 (Table 4).

Discussion

It is estimated that in one third of hospitalized patients AMI is not recognized by the physician or the patient because chest pain is atypical or absent (Kannel et al., 1987, pp.II-4-5). As many as 50 percent of patients with AMI may initially arrive at emergency rooms with undiagnosed ECGs (Apple, 1992, pp.217-226). Prompt recognition of a patient with an ACS is very important since appropriate therapy can markedly improve the prognosis. New cardiac biomarkers have emerged as strong predictors of risk among patients presenting with ACS. Importantly, these biomarkers access different path-physiological mechanisms in myocardial ischemia: increases in cardiac Troponin T indicate myocardial necrosis (Adams et al., 1993, pp. 101-106). CK-MB rises within 3-4 hours of cardiac ischemia or necrosis (Dekker et al., 2010, pp.1001-1010).

This study showed significant increase in troponin T in patients with AMI, indicating potential relevancy of this marker for predicting cardiac tissue damage with specificity and sensitivity of 96 percent and 75.6 percent, respectively and PPV of 94.4 and positive LR of 18.9. Similar result for troponin was reported (Robert et al., 1985). In case of CK-MB, significant difference was observed between case and control with specificity and sensitivity of 89 percent and77.8 percent, respectively, being more sensitive (NPV-80) than Troponin T (NPV-79.6), suggesting its efficacy as an earlier marker for the screening purpose. Positive association of CK-MB was observed with troponin. The sensitivity of CK-MB as 100 percent and specificity of 86.8 percent for the diagnosis of AMI was observed (Gama et al., 1990). Serum level of MMP-9 showed no significant difference between the groups ($p>0.05$) and no substantial correlation was observed with CK-MB and Troponin T. High levels of matrix metalloproteinase (MMP) might act as a surrogate marker of atherosclerotic plaque burden, however, it has demonstrated no utility in evaluation of ACS patients (Apple et al.,2007, pp.874-881).

In case of IMA and AIMA, the study presented a significant increase in the serum level in the case group as compared to the control group, but no correlation was observed with any of the cardiac markers. However, higher specificity and sensitivity along with a higher positive and negative predictive value for IMA has been reported as compared to the CK-MB (Chawla et al., 2006). IMA along with ECG or Troponin T measurements, or both, have shown to improve the sensitivity for the diagnosis to 90%–95% (Sinha et al., 2004).

This study revealed considerable rise in oxidized LDL level in the case compared to the control which was proportional to that of TroponinT and CK-MB. Significant positive correlation was found with troponin T and CK-MB ($p<0.001$). A strong association between oxidized LDL and CAD has been reported in patients with acute coronary syndromes (Ehara et al., 2001 & Holvoet et al., 1998). These findings indicate that the risk for AMI is associated with the relative degree of LDL oxidation. Several mechanisms have been identified through which it may contribute to the development of atherosclerosis. It can cause intimal inflammation by activating expression of adhesion molecules on endothelial cells, stimulate leukocyte chemotaxis and induce the release of growth factors from macrophages (Christopher et al., 2001, pp.503-516).

Conclusion

Troponin T and CK-MB provided the highest diagnostic accuracy as MI markers followed by oxidized LDL.CK-MB appears to be the most sensitive marker for MI. Since LDL oxidation leads to atherosclerosis and finally ischemia hence oxidized LDL can be included in the extended lipid profile as well as in the panel of cardiac markers. A multi-biomarker strategy seems to be the most useful for clinical decision-making in cardiovascular diseases as multiple processes occurring

simultaneously which can be detected distinctly in the pathway/s of development of myocardial infarction.

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Shambhu Adhikari

Ph.D. Scholar

VALUE ADDED TAX IN NEPAL: PROBLEMS AND PROSPECTS

Abstract

The general objective of this study is to analyze problems and prospects of VAT in Nepal. The VAT has a major influence on investment decisions, national welfare and mainly on consumer behavior. The VAT, primarily as a consumption tax, has been the subject of various studies throughout history, either to show its impact on demand and economic growth or simply to see how the VAT benefits all the parties involved. Others have analyzed the advantage of introducing the VAT and how it functions in developing countries. However there are lots of controversies that have aroused since the information obtained about VAT from these developing countries are most of the time improper or inaccurate. The secondary data have been extracted mainly through the annual reports, Inland Revenue Department (IRD), Economic surveys, periodicals, economic journals, managerial magazines and other published and unpublished reports and documents, theses and dissertations from various secondary sources. The nature of this research study is descriptive as well as analytical.

Key words: VAT, IRD, Economic survey, direct tax, descriptive, commodities, sales

Introduction

A really progressive and welfare-oriented country should balance the requirements of direct and indirect taxes in a fair manner. Too much dependence on direct taxes will be repressive but at the same time, passing heavy burdens to the general public by way of indirect taxes will constitute hardships to the common citizen. Therefore, economic administrators throughout the world have been constantly engaged in the exercise of lightening the burden of indirect taxes on the ultimate consumers.

The tax has been levied and collected at each stage of manufacture only on the value added by the manufacturer represented by the purchase value and the value of the work performed on such purchased commodities. This will not only result in cost reduction but will also ensure equity. In

the same way, there can be a value added tax in respect of trading in commodities also. In other words, the various taxes paid on inputs purchased will be allowed as a credit and will be allowed to be set-off against the tax liability on the value of sales of the commodity (www.oecd.org).

Thus, there can be a system of VAT in respect of manufacture and in respect of sales. In the same way, one can think of a system of VAT in dealing with input and output services. When the individual systems of manufacturing, sales and services VAT are ultimately combined to form a grand system of VAT on goods and services, such a VAT system will be applicable throughout the country as a common market. VAT is the recent innovation in the field of taxation in Nepal. Despite all the constraints and obstructions from the business communities, VAT was introduced in Nepal on 16 November, 1997 with the objectives of increasing revenue mobilization by broadening the tax base, and of installing neutrality, efficiency, fairness, and transparency in tax administration. It was launched in place of the then four different taxes, namely, Sales Tax, Contract Tax, Entertainment Tax, and Hotel Tax (Shah, 2012, p. 7).

Statement of the Problem

In every country, the government collects its revenues though different sources. Out of which, taxes contribute a significant amount in the public revenues. The government mobilizes its revenues through budget in development activities for the public welfare and interests. Nepal is a least-developed and one of the poorest countries in the world. It has low per capita income (USD 1034) and more than one third (21.6% + 12%= 33.6% due to pandemic) people of the nation are living under the poverty line (MoF, 2020). The economic development and prosperity is very low. Foreign dependency and internal leakage has made the government think for another option which is expected to increase the revenue. Moreover, fiscal deficit has been increasing due to the continuously growing expenditure and the low revenue performance in Nepal. In addition, the country has also been facing the increasing burden of foreign loan. In this fragile Nepalese economic environment, how is VAT faring is the main concern. Following are the research questions of this research study:

- What is the contribution of VAT in raising the total revenue of the government?
- What are problems and prospects in effective VAT administration in Nepal?

Objectives of the Study

The general objective of this study is to analyze problems and prospects of VAT in Nepal. However, the specific objectives of the study are as follows:

- To analyze the contribution of VAT to total revenue of the government,
- To identify the major problems and prospects in effective implementation of VAT in Nepal.

Materials and Methods

Research Design

Research design is a plan structure and strategy of investigation conceived so as to obtain answers to research questions and to control variances. The study aims to portray on the VAT and its contribution to the total revenue of Nepal. The research design followed for this study is basically a historical, empirical and descriptive-cum-analytical.

- **Nature and Sources of Data**

The nature of this research study is descriptive as well as analytical. This study is conducted on the basis of the secondary data relating to VAT administration. The secondary data have been collected mainly through the annual reports, Inland Revenue Department (IRD), Economic surveys, periodicals, economic journals, managerial magazines and other published and unpublished reports and documents, theses and dissertations from various secondary sources.

Value Added Tax (VAT) in Nepal

In Nepal, Value Added Tax (VAT) was introduced on 16 Nov. 1997. This tax was levied in place of the Sales Tax, Hotel Tax, Contract Tax and Entertainment Tax. However, it could not be implemented fully until the FY 1998/99 due to political instability and strong opposition from the business community. VAT replaces the old Sales Tax, Contract Tax, Hotel Tax and Entertainment Tax. It has been designed to collect the same revenue as the four taxes it replaced. Since the collection of both customs duties and income tax depends, to a great extent, upon the effectiveness of VAT, it is expected to help enhance revenue collection.

VAT is a broad-based tax as it also covers the value added to each commodity by a firm during all stages of production and distribution. It is a modern tax system to improve the collection of taxes, to increase efficiency and to lessen tax evasion. It is also regarded as the backbone of income tax system in Nepal. The current threshold for VAT registration is NRs. 2 million. Those vendors whose annual turnover is below the threshold can, however, register voluntarily.

Collection of VAT

There are two sources of VAT collection, one is from import and other is from internal sources. While importing the goods from outside country, VAT is charged on the goods imported. This VAT is input tax credit for the company. When the goods reach on the Nepal border, there is a customs office where the goods are valued and accordingly VAT is charged. This import VAT is input tax credit for the company. The other is from internal source which includes local purchases of goods and services from the VAT registered shop which is also input tax credit for the company and sales of goods and services which is Output tax credit of the company. The note should be made that only the company who are registered in VAT can deduct the output tax credit from input tax credit. If the company is not registered, they cannot claim their input tax credit which they collect from purchase of goods and services.

Revenue Structure in Nepal

Nepalese government has two components of public revenue; one is non-tax revenue and other is tax revenue. The main source of non-tax revenue of government is public income received through the administration, commercial enterprises, gifts and grants.

Table 1

Tax Revenue Collection of Nepal

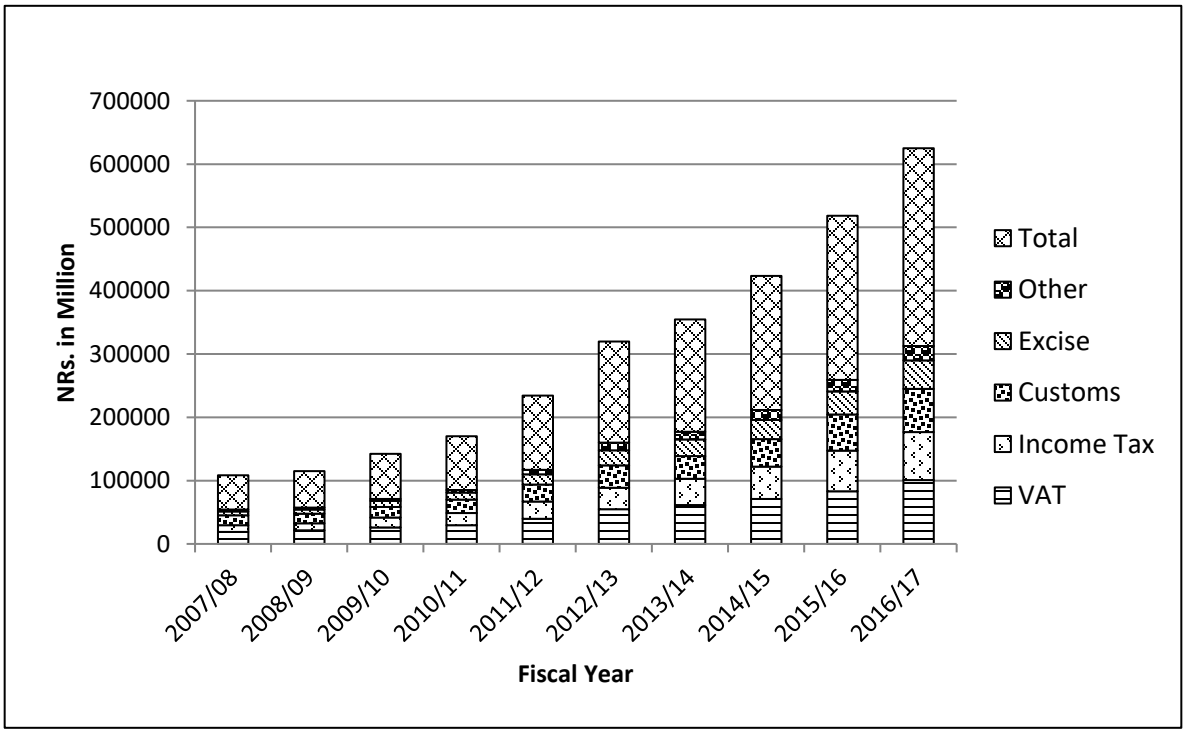
Fiscal Year	VAT	Income Tax	Customs	Excise	Others	Total
2007/08	18,885	10,466	15,701	6446	2,607	54,105
2008/09	21,613	109,934	15,344	6,507	3,029	57,427
2009/10	26,096	15,732	16,707	9,343	3,249	71,127

2010/11	29,816	19,078	21,062	11,190	4,009	85,155
2011/12	39,701	27,247	26,793	16,221	7,090	117,052
2012/13	54,921	33,821	35,218	24,148	11,677	159,785
2013/14	61,664	41,350	35,713	26,339	12,161	177,227
2014/15	70,930	51,303	43,391	30,016	16,082	211,722
2015/16	83,418	64,187	56,932	36,235	18,443	259,215
2016/17	101,110	75,608	67,981	45,411	22,330	312,440

Source: Economic Survey, Various Issues, Ministry of Finance, GoN,

Figure 1

Tax Revenue Collection of Nepal



Source: Based on Table 1

Table 1 and figure 1 demonstrates that the structure of tax income of Nepal. In FY 2007/08, revenue growth is 6.14 percent. Furthermore, the income is observed in increasing order. In FY 2008/09, it has become 23.86 percent. In FY 2009/10, the income has slightly been increased to 19.72 percent. In FY 2010/11, the income highly raised to 37.46 percent. Accordingly, in other FY 2011/12, 2012/13, 2013/14, 2014/15, 2015/16 the tax income of Nepal is 36.51, 10.92, 19.46, 22.43, 20.53 respectively. Mostly importantly, the highest growth rate in Nepalese tax system was observed in FY 2009/10 which was 37.46 percent and comparatively the lowest growth rate was in FY 2007/08 which was 6.14 percent.

Problems and Prospects of VAT Collection in Nepal

Value Added Tax is a superior tax with many good features as well as theoretical merits. But it would be wrong to persuade one to believe that VAT is the best tax, which has no drawbacks. Like other taxes, the VAT may be problematic if accompanying factors are unsuitable. The actual implementation of VAT in many developed as well as developing countries shows that the VAT is bound to fall well short of the theoretical ideas; there are many difficulties in applying the full VAT principle to reality. Problems of VAT in Nepal are as follows:

- **Small Traders**

The challenge of the small traders is one of the most prominent issues of the applicability of a VAT in Nepal. The trading activity of the country is dominated by small traders, which includes most of the retailers, artisans, craftsmen, street hawkers and seasonal traders. They are scattered throughout the country including rural and remote areas, which makes it difficult to bring them into tax net and government administratively. But bringing the small traders, which include most to the retailers, into VAT net is essential for many reasons.

- **Granting Exemption**

The administrative as well as tax compliance problems of small taxpayers have made it necessary to derive various ways to deal with the small traders. Among them, perhaps, the best possible device for Nepalese context is granting exemption to the truly small traders. This method was originally practiced by European countries and later has been used by several other developing countries.

- **Taxpayers' Identification**

Even though the threshold limit is fixed either by employing any criteria or by arbitrary manner, problems still remain as how to identify the businesses whose annual turnover is above the threshold limit. In the case of existing taxpayers under sales tax and other businesses who keep systematic record of their transactions, these may not be any problem. But in the case of businesses, those who have become new taxpayers, the problem is really tough. As VAT would bring many of the retailers into tax net, it would be very difficult to know which of the trader is legal taxpayer and liable to register under the VAT. There would be no strong evidence to show that one should register, and tax administration cannot compel them to register without any evidence or record. Voluntary registration cannot be expected since there may not be any strong incentive for all traders to do so.

- **Business Structure and Practices**

VAT is considered not ideal for all developing countries. One of the basis causes for such consideration is that the business structure and practices in many developing countries is not modernized which makes a VAT inapplicable or unsuitable to those countries (Subedi, 1997).

- **Tax Administration**

A saying tax administration is tax policy in developing countries also holds true in Nepalese context. Administrative issues are the most important issues of the applicability of a VAT in Nepal. The success and effectiveness of a VAT in Nepal depend on the administration (Khadka, 1997).

- **Corruption**

The applicability of VAT in Nepal is further hindered by the existing widespread corruption in the tax administration. Not only is the tax administration, the whole political system is corrupt in Nepal. Corruption is politically protected and institutionalized from top to bottom level (Shrestha, 1993).

- **Open Border and Unauthorized Trade**

Open border issues assume greater problem for the success of VAT in Nepal. The long open border of Nepal with neighboring countries creates many problems of the tax system of Nepal due to the free movement of people and large amount of unauthorized through the border.

- **Tax Evasion**

The large amount of illegal trade and other established tax-evading practices pose a great challenge to a VAT in Nepal (Silwal, 1998). Most of the tax evasion occurs at the import level. The existence of long-open border and weak and easily corruptible tax administration are the major factor facilitating tax evasion.

- **Geographical Issues**

The existing geographical condition of the country and difficulties created by such conditions would create several problems for the applicability of the VAT in Nepal.

- **Narrow Tax Base/Coverage**

Exclusion of agriculture, the biggest sector, along cuts the tax base by almost 40 percent of GDP. Many exemptions, deductions and rebates are granted under the Industrial Enterprises Act. Similarly, large numbers of exemptions are granted under the customs duties, house and land tax and excise duties currently levied only on domestic products, keeping import outside the excise net.

- **Smuggling and Under Valuation**

Due to the open border with India, it is being challenging issue and problem of illegal trade is still alarming. People of the India and Nepal may easily enter into one another's country and buy goods but not paying customs duties for personal use.

Prospects of VAT in Nepal

- **Fixation of Threshold Limit**

Small traders should be exempted initially. Other ways of treating small traders may be adopted after some years of experience with VAT. Before fixing a threshold limit, a survey of the number and turnover of new (potential) taxpayers should be conducted. To fix the threshold limit, it would be better to follow the administration approach. For this, first, the administrative capability should be assessed as how many new taxpayers can be dealt with existing administrative power.

- **Number of Additional Taxpayers**

The number of additional taxpayers that are likely to come under VAT and their turnover should be assessed. The threshold limit should be fixed at the point where administratively required number of taxpayers is equal to the actual number. Businessmen, various trade groups, and their associations and organizations should be consulted and their opportunities should also be considered in fixing the threshold limit.

- **Simple Accounting System**

Simple tax return forms and simple accounting system should be granted to the small taxpayers. A technical data-base should be prepared, revised and updated in regular way for the administrative purpose.

- **Implementation of VAT**

The task of implementing the VAT should be performed by a high level of VAT implementation team with a close co-operation with government departments. The VAT implementation team should be a very active and effective one. It should include the representatives from various sectors with special preference to business organizations.

- **Political Intervention**

Tax administration should be kept away from political intervention or any sort of influences from the outside. Capable candidates should be selected in the leadership of tax administration.

- **Provision of Better Services**

Taxpayers should be provided better services; tax personnel should be polite, co-operative and quick in their job and services. A proper respect should be paid to the taxpayers. The taxpayers who are honest and co-operative with the administration should be honored publicly. Such a program would raise the status of taxpayers and establish their separate identity in the society.

- **Import Valuation**

Imports should be actually valued. An accurate and timely data of the prices of all kinds of commodities prevailing in local and international markets should be maintained. Along with the actual valuation, import duties should be reduced in such a way that there is no substantial increase in the tax burden on imports.

Conclusion

In most low-income countries, like Nepal, the tax administration are often corrupt, inefficient and do not operate in a transparent manner. This condition is the result of the mix of the taxes used, their faulty design, and the methods of tax administration. These tax administrations are generally affected by policies relating to the traditional public sector personnel system, salary levels, and criteria for advancement or discipline that usually are rooted deeply in the country's history. In these countries, the systems of tax administration follow a predictable pattern of behavior, - but in a traditional way. Governments have been able to generate revenue by setting revenue targets for the tax administration while not being very concerned about how these targets are achieved. Tax officials cannot be blamed individually; any official joining tax administration will have to follow existing practices and procedures. This has created a stable system in which government revenue targets are met, most taxpayers pay less than their legal tax liabilities, and tax officials make considerable income as a result of side payments, which arise from their negotiations with taxpayers. A great deal of uncertainty and administrative congestion are by-products of such a system.

Recommendations

The following recommendations have been suggested to implement VAT effectively:

- Simple and transparent tax provisions enhance compliance with the law, while consistently applied penal provisions discourage non-compliance. Therefore, along with the simple and transparent provisions, uniformly enforced penal provisions also form the basis of the effective income tax administration.
- The VAT office is advised to follow the unified functional system. Under this system, a VAT officer is made responsible for the administration of each and every aspect, including the registration, assessment and collection of VAT in particular area.
- One of the important functions of the modern VAT administration is to raise the level of voluntary tax compliance. In order to encourage this, the VAT administration needs to carry out an extensive taxpayer education program.

- It is necessary to establish an appeal system that is independent and impartial. At the same time, there must be specific rules and time requirements in order to maintain revenue levels. The appeals system should be structured to balance a number of interests.
- The personnel development is one of the major problems for the inefficiency of the VAT administration. So, the VAT office is recommended to pay concern to the human resource development. A specialized group should be created for administrating taxes with special rules relating to recruitment, transfer, training, promotion, salary, and so on.
- In Nepal, VAT administrations use traditional techniques and procedures, which are far from desirable. VAT administrators are guided by the traditional sales tax mentality. A computerized and modern administrative techniques need to be adopted by the Internal Revenue Deparment of Nepal.

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नेपालको लोकतान्त्रिक आन्दोलनमा जनकपुरको भूमिका

- डा.शैलेन्द्र नारायण मल्लिक

सार

नेपालमा लोकतान्त्रिक प¢तिको स्थापनार्थ जहानियाँ राणाशासनबाट मुक्त हुन २००७ सालमा र त्यसपछि पंचायती व्यवस्थाको नाममा राजतन्त्रात्मक शासनको निर$्कुशताबाट मुक्त हुन २०२६-२०३३ सम्म र २०३६ को आन्दोलन एवं २०४६ सालको जनआन्दोलनबाट निर्दलीय व्यवस्थाको अन्त्य भए पनि निर$्कुश राजतन्त्रको समाप्तिका लागि २०६२-०६३ को जनआन्दोलनसहित संघीयता र अधिकारका लागि भएको मधेस आन्दोलनमा जनकपुर र यस भेगको भूमिका एवं योगदानको विवेचना गर्ने प्रयास प्रस्तुत लेखमा गरिएको छ ।

सूचक शब्द- लोकतान्त्रिक, जनआन्दोलन, गिर०तार, क्रान्ति, जनमुक्ति सेना, विरोध, मधेसी ।

१. विषय प्रवेश

नेपालको लोकतान्त्रिक आन्दोलनको इतिहासमा मेचीदेखि महाकालीसम्म फैलिएको तराई-मधेसबाट नै परिवर्तनका लागि संघर्षका प्रयासहरु भएको पाइन्छ । तराई मधेसको कुनै पनि यस्तो जिल्ला भेटिन्न जहाँ लोकतान्त्रिक आन्दोलनका कुनै न कुनै गतिविधि भएको न होस् । नेपालमा लोकतान्त्रिक आन्दोलनको सूत्रपात वि.सं. १९९३ मा प्रजा परिषद्को स्थापनापश्चात् भएको हो । वि.सं. १९९७ मा प्रजा परिषद्का नेता-कार्यकर्ताहरूले पर्चा छडेर निर$्कुश राणाशासनको विरोध गर्दै राणाहरूलाई बम विस्फोटनद्वारा सखाप पारी प्रजातान्त्रिक व्यवस्थाको स्थापना गर्ने योजना बनाएका थिए । यसबाट राणाशासक भयभीत भए र प्रजापरिषद्का नेता-कार्यकर्ताहरूलाई पक्रन थाले । यसका लागि पाँचहजारको पुरस्कार दिने समेत घोषणा गरिएको थियो ।प्रजापरिषद्का सभापति टंकप्रसाद आचार्य सो समय बनारस गएका थिए । उनलाई जलेश्वरबाट बाबु मृत्युशøofdf 5g\ t'रूGt cfpg' eGg] ;Gb]z पुऱ्याई बोलाइयो । नेपाल पसेपछि उनलाई नेल ठोकियो (सुवेदी, २०६१, पृ.२७८) । पक्राउ परेकामध्ये दशरथचन्द, धर्मभक्त, गंगालाल र शुक्रराज शास्त्री सहिद भए । यसरी वि.सं.१९९७ मा निर$्कुश राणाहरूको जहानियाँ सत्ताले चलाएका दमनकारी हिंसात्मक घटनाको परिणामबाट राणाशाही विरुद्ध नेपालीहरू संगठित हुँदै गएको इतिहास पाइन्छ ।

आजको परिवर्तन दशकौंदेखि समय-समयमा भएका आन्दोलनहरू र तिनका अनेक आदरणीय सपूत सहिदहरू, राजनीतिका साधकहरूको योगदानको प्रतिफल हो । वि.सं.१९९७ मा सहादत प्राप्त गर्ने सहिदहरू हुन् अथवा २००७ सालको क्रान्तिवीरहरू हुन्, २०१८ का योद्धाहरू हुन् वा वामपन्थी आन्दोलनमा सहभागी सहिदहरू, २०२६-२०३३ का आन्दोलनदेखि २०३६ सालसम्म र २०४६ सालको परिवर्तनकारी जनआन्दोलन एवं २०६२-०६३ सालको आन्दोलन लगायत त्यसपश्चात्का मधेस आन्दोलन सहितं समय-समयमा आत्मबलिदान गर्ने साहसीहरू, सबैको संयुक्त प्रयासको परिणाम हो । यद्यपि प्रारम्भदेखि नै आन्दोलनको पृष्ठभूमिमा हिंसा भएको देखिए पनि अन्ततः शान्तिपूर्ण जनआन्दोलनले मात्रै परिवर्तनलाई परिणाममा पुऱ्याएको स्पष्ट छ ।

लोकतान्त्रिक आन्दोलनको सूत्रधारको श्रेय प्रजापरिषद्लाई मानिए पनि आन्दोलनलाई गतिशील तुल्याउने कार्य २००३ सालमा गठित नेपाली राष्ट्रिय कांग्रेस र सोसंगै गठित नेपाली प्रजातन्त्र काँग्रेसले गऱ्यो । यी दुवैको एकीकरणबाट प्रस्फुटित शक्ति नै २००७ सालको ऐतिहासिक जनआन्दोलन जनक्रान्तिमा परिणत भई त्यसकै विकास वर्तमान नेपालको राजनीति र अस्तित्व हो । यसपछि नेपाल कम्युनिस्ट पार्टीको योगदान पनि कालान्तरमा क्रमशः थपिँदै आएको पाइन्छ ।

२. लोकतान्त्रिक आन्दोलन र जनकपुर

प्रजापरिषद्को भूमिका र त्यसका कार्यकर्तामाथिको हिंसात्मक दमनबाट राणा शासन विरुद्ध जनचेतना फिंजाउन प्रतिशोधात्मक जोसको परिणामस्वरूप नेपाली युवकहरू भारतको काशीमा संगठित भए । तत्कालीन परिस्थितिमा नेपाली भूमिमा खुला रूपले संगठित हुन सक्ने अवस्था थिएन । यसै परिवेशमा काशीका नेपाली युवकहरूले एउटा गोष्ठी गरी भारतीय समाजवादी नेता जयप्रकाश नारायण र राममनोहर लोहियाको सहयोग र निर्देशनमा २००३ कार्त्तिक १५ गते (सन् १९४६ अक्टुबर ३१) का दिन 'अखिल भारतीय नेपाली राष्ट्रिय कांग्रेस' को स्थापनाका निम्ति तदर्थ समिति गठन भयो । यसले २००३ माघ १२ र १३ गते (सन् १९४७ जनवरी २५ र २६) का दिन कलकत्ताको भवानीपुरमा सम्मेलन गऱ्यो । यसै सम्मेलनबाट 'नेपाली राष्ट्रिय कांग्रेस' को स्थापना भई ६४ नं. दुधविनायक काशीमा कार्यालय खोलियो । नेपाली राष्ट्रिय कांग्रेसको स्थापनाका बखत कलकत्ताको सम्मेलनमा जनकपुरको प्रतिनिधित्व रुद्रप्रसाद गिरी र सरोज कोइरालाले गरेका थिए । २००३ साल फागुनमा विराटनगरको मजदुर हड़तालमा सरकारी दमनपछि कांग्रेसले बैठक गरी सरकारलाई दमनकारी नीति बन्द गर्न र सम्पूर्ण

गिरफ्तार गरिएकालाई मुक्त गर्ने अन्यथा जनआन्दोलन गर्ने निर्णयको जानकारी गरायो । सरकारले कुनै वास्ता नगर्नुका साथै नेताहरूलाई पनि मुक्त गरेन । यसै पृष्ठभूमिमा २००३ चैत्र २७ र २८ गते (सन् १९४७ अप्रिल ९ र १०) का दिन जोगबनीमा नेपाली राष्ट्रिय कांग्रेसको विशेष बैठक बसेको थियो । त्यसमा जनकपुरबाट महेन्द्र नारायण निधि सहभागी भएका थिए । यसै बैठकबाट २००४ वैशाख १ गतेदेखि देशभरि सत्याग्रह आन्दोलन गर्ने निर्णय गरिएको थियो । सोही अनुसार १३ अप्रिल देखि राष्ट्रव्यापी आन्दोलन सुरु भयो (यादव, २०४०, पृ.३४४) । यद्यपि तत्कालीन समयमा राणाशासनको कुदृष्टिको प्रकोपबाट बच्न र आन्दोलनलाई उँचाइमा पुऱ्याउन सीमापारिको जयनगरमा संस्थापक सदस्य रुद्रप्रसाद गिरीले यस भेगको (नेपाली राष्ट्रिय कांग्रेस महोत्तरी शाखा) कार्यालय सञ्चालन गरिरहनु भएको थियो । जनकपुरधाममा सत्याग्रह आन्दोलनका लागि रुद्रप्रसाद गिरी, पं.रमाकान्त झा, दिगम्बर झा आदिका सत्प्रयासले २००४ साल वैशाख १५ गतेका दिन सत्याग्रहीको प्रथम जत्था सरयुग चौधरी, लक्ष्मण साह, मिश्रीलाल गुप्ता, रामअशिष भगत, मेघनाथ उपाध्याय, भीष्मजंग केसी समेत १५ जना समातिएका थिए भने सोको ४ दिनपश्चात् १९ गते महोत्तरीको गौशालाबाट दिगम्बर झा नेतृत्वको बच्चा झा समेतका युवा सत्याग्रहीहरू समातिए र जेल हालिए (नेपाली, २०६९, पृ.२०) । यसक्रममा २००४ सालमा मार्ग ३ गते मातृकाप्रसाद कोइराला, वि.पि.कोइरालाले महिनाथपुर, उमगाउँ, मधवापुरका सभाहरूमा सम्बोधन गरेका थिए र सो समय उनीहरूलाई जनकपुररोड (पुपरी) तर्फ बिदाई गरी फर्कदै गर्दा मटिहानीमा महेन्द्रनारायण निधि, सरोजप्रसाद कोइराला र नकुलबहादुर सिंह राजकाज मुद्दामा पक्राउ पर्नु भएको थियो (नेपाली, २०६९, पृ.२०) । यसप्रकार विराटनगर, वीरगन्ज, जनकपुर, ईलाम, नेपालगन्जका साथै उपत्यकाका तीनै सहरमा आन्दोलनले व्यापक स्वरुप लियो । परिणाम, २००४ सालको वैधानिक कानुनको निर्माण भयो जसलाई राणाजीहरूले क्रियाशील हुन दिएनन् । सत्याग्रह आन्दोलनका क्रममा जेलमा थुनिएका नेता कार्यकर्ताहरुले जेलमा अनसन गर्न थाले । मलंगवाको जेलमा थुनिएका कृष्णप्रसाद (कोइराला) शर्मा २१ दिन अनसन बस्ताबस्तै दिवa्गत भए । यसै बिच २००५ श्रावण १ गते नेपाल प्रजातन्त्र कांग्रेसको स्थापना भयो । दुईटा कांग्रेसले जनबललाई सन्तुलित पारी संगठन कार्यलाई दरिलो पार्न न सकिने हुँदा फुटेको जनशक्तिलाई संगठित गर्न नेपाली राष्ट्रिय कांग्रेस र नेपाल प्रजातन्त्र कांग्रेसको २००६ चैत्र ७ गते (९ अप्रिल १९५० ई.) मा कलकत्तामा संयुक्त बैठकको आयोजना गरी छलफल भयो र यी दुई दललाई मिलाई एउटा नयाँ रूप दिई नेपाली कांग्रेस भनी नामकरण गरियो । यता राणाशासक मोहन शमशेरको दमनचक्रले दिन प्रतिदिन उग्र रूप

ग्रहण गर्न थालेपछि सशस्त्र क्रान्ति गर्नुको विकल्प रहेन र कांग्रेसले यसका लागि २००७ सालको असोज १० र ११ गते (२६ र २७ सेप्टेम्बर १९५० ई.) का दिन बैरगनियाँमा सम्मेलन ग-यो । यस सम्मेलनबाट विधिवत्रुपमा सशस्त्र क्रान्ति गर्ने निर्णय भयो । यस सम्मेलनमा महेन्द्रनारायण निधिसहित महिनाथपुर क्याम्पबाट यस क्षेत्रका युवाहरू पनि सहभागी भएका थिए । सन् २००५ मा गिरफ्तार भएका सरोज प्रसाद कोइराला, भीष्मजंग केसी, रमाकान्त झा, दिगम्बर झा, ज्ञानीशङ्कर गिरीहरू २००७ सालको जनक्रान्तिको समयमा जलेश्वर जेल तोडेर महिनाथपुर क्याम्पमा बसेका थिए (जोशी, २०७१, पृ.१२२)।

२००७ साल कार्त्तिक २१ सोमवार (६ नोभेम्बर १९५०) का दिन राजा त्रिभुवन दरबार त्याग गरी भारतीय दूतावासको शरणमा गए । यता सशस्त्र क्रान्तिको घोषणा गरी पर्चा छर्नुका साथै मुक्ति सेनाले यत्रतत्र कब्जा गर्न थाल्यो । २००७ कार्तिक २५ गते (१० नोभेम्बर १९५०) साँझ काठमाडौँ उपत्यकामा वायुयानबाट पर्चा छरियो र त्यसै दिन देखि नेपाली कांग्रेसको नेतृत्वमा देशव्यापी आन्दोलन प्रारम्भ भयो ।

२००७ कार्तिक २५-२६ गते (१० र ११ नोभेम्बर १९५०) मा थिरबम मल्ल र पुरन सिंहको नेतृत्वमा विरगन्ज कब्जा गरी जनसरकारको स्थापना भयो । यस समाचारले देशभरि नै क्रान्तिको आगो दन्कँदै गयो र प्रवासमा छरिएर रहेका नेपाली युवकहरू त्यसबाट प्रेरित भए । फलतः भारतका शिक्षालयहरूबाट युवकहरू मुक्तिसेनामा भर्ती हुन थाले । सरकारी पक्षमा पनि कांग्रेसको यस सफलताले तरङ्गित गऱ्यो । जिल्लाको सामान्य प्रशासन निस्क्रिय भए । स्थानीय सरकारको सम्पूर्ण शक्ति बडाहाकिमको निवासस्थलमा केन्द्रित भयो । विरगन्ज जस्तै कब्जा गरिएका स्थानहरूमा समानान्तर वा जनसरकार स्थापित भए । कृष्णप्रसाद भट्टराई र रुदप्रसाद गिरी नेतृत्वको मुक्तिसेनाले २००७ को मङ्सिरमा उदयपुर, महिनाथपुर स्टेसनसहित एकपछि अर्को स्थान कब्जा गर्दै जलेश्वर बाहेकका सम्पूर्ण महोत्तरी-जनकपुर क्षेत्रमाथि कब्जा जमायो । १२ डिसेम्बरमा मलङ्गवाका केही युवकले एक स्टेनगनको भरमा मलङ्गवामाथि आक्रमण गरे र त्यहाँका स्थानीय अधिकारीहरू भागेर जलेश्वर पुगेकाले त्यहाँ कुनै संघर्ष भएन । तथापि ४ दिनपश्चात् त्यहाँ गोरखाबाट सरकारी सैनिक आइपुगेकाले अन्त्यसम्म संघर्ष भइ रह्यो । यस आन्दोलनका क्रममा जनकपुर रेलमाथि कब्जा पश्चात् मुक्ति सेना र

राणा सैनिक दल बिच २००७ साल माघ २ गते गोलाबारी पछि मात्र जनकपुरधाममाथि मुक्तिसेनाको अधिकार स्थापित भयो र माघ ४ मा जनकपुरमा महोत्तरी जनसरकारको गठन भयो । मुक्ति वाहिनीका कमान्डर रुद्रप्रसाद गिरी गर्भनर भए भने महेन्द्र नारायण निधि जनसरकारका प्रधानमन्त्री र मन्त्रीमा बोधप्रसाद उपाध्याय, सरोज प्रसाद कोइराला, दिगम्बर झा र इन्द्रबहादुर मल्ल रहेका थिए । राणाविरोधी त्यस जन आन्दोलनमा निर्गुण यादव, सरयुग चौधरी, युगेश्वरप्रसाद वर्मा आदिको उल्लेखनीय भूमिका रहेको थियो । यति बेला जलेश्वर जेलमा बन्दी जीवन बिताइरहेका पं.रमाकान्त झा, नकुल बहादुर सिंह र कवि नरेन्द्र देव आदिलाई जनसरकारले जेलमुक्त गराई जनकपुर ल्याई नागरिक अभिनन्दन गरेको थियो (नेपाली,२०६९,पृ.२१)।

२००७ साल फागुन ७ गते नेपाली कांग्रेस र राणाका बिच भएको सहमति अनुसार राणाशासनको समाप्ति र प्रजातन्त्रको घोषणा राजा त्रिभुवनबाट भएपश्चात् गठित सरकारमा भद्रकाली मिश्रले स्थान पाए भने रुद्रप्रसाद गिरी महोत्तरी-सर्लाहीका बडाहाकिम (गभर्नर) भए । महेन्द्र नारायण निधि र रामनारायण मिश्र २००८ साल असोज १६ मा गठित सल्लाहकारसभाका सदस्य भए भने दिगम्बर झा र मेघप्रसाद उपाध्याय बडाहाकिम भएका थिए । २००९ सालमा सर्लाहीमा कम्युनिस्ट पार्टीको नेतृत्वमा ठुलो किसान आन्दोलन भएको थियो, जसमा हिंसात्मक घटना पनि भएका थिए (जोशी, २०६९, पृ.९७) । नेपाली कांग्रेसको पाँचौँ महाधिवेशन २००९ मा जनकपुरमा सम्पन्न भएको थियो । यो देशभित्रै भएको पहिलो महाधिवेशन थियो । प्रतिकूल परिस्थितिमा सम्पन्न यस महाधिवेशनले जनकपुरको तत्कालीन राजनीतिक महŒवलाई दर्साउँछ । त्यतिबेला हालको धनुषा, महोत्तरी र सर्लाहीको ठुलो भूभागलाई महोत्तरी भनिन्थ्यो (बस्नेत, २०६९, पृ.६१)। २०१० सालमा जनकपुरमा भएको अधिवेशनपछि जमिनदारी उन्मूलनको आन्दोलन पनि महोत्तरी-धनुषाबाटै प्रारम्भ भएको थियो । २०१५ सालको आम निर्वाचनमा नेपाली कांग्रेसले अत्यधिक बहुमत प्राप्त गरेर सरकार गठन गरेको थियो । तर यस सरकारको गठनमा आन्तरिक कलह र असन्तुष्टिबाट राजा महेन्द्रलाई सहयोग पुग्यो, परिणामस्वरूप २०१७ साल पुस १ गतेका दिन राजा महेन्द्रले आफ्ना मातहतमा रहेको सन्यै सहायताले नेपाली कांग्रेसको जननिर्वाचित सरकारलाई अपदस्थ गरे । बीपी कोइराला, उहाँका मन्त्रिमण्डलका सदस्य र प्रतिनिधिसभाका सभामुखसमेतलाई कुनै कारण नदेखाई गिरफ्तार गरियो । सबै राजनीतिक दलहरु प्रतिबन्धित भए (गिरि, २०६६, पृ.५) । २०१७ साल पौष २२ मा राजा महेन्द्रबाट देशमा पञ्चायती प्रजातन्त्र प्रणालीको घोषणा

गरियो । प्रजातन्त्रमाथि राजा महेन्द्रको प्रहारबाट राजनीतिक दलका कतिपय नेताहरू कैदमा परे भने कति भागेर भारत पसे र त्यहीबाट पञ्चायती व्यवस्था विरोधी गतिविधि गर्न थाले ।

२०१७ सालमा संसदीय व्यवस्थाको विघटनपूर्वसम्म नेपालको राजनीतिमा कांग्रेसको र त्यसमा पनि महोत्तरीको वर्चस्व थियो । यस भेगका तत्कालीन राजनीतिज्ञहरूमा सरोजप्रसाद कोइराला, रामनारायण मिश्र, महेन्द्रनारायण निधि, बोधप्रसाद उपाध्याय, महेश्वर सिंह, सूर्यमान जोशी, रुद्रप्रसाद गिरी, भोजराज घिमिरे, मकेश्वर सिंह, वेणीमाधव आदि अग्रपव्क्तिमा थिए (दाहाल, २०६९, पृ.३४)। कांग्रेसको संगठनात्मक वर्चस्वको कारण नै प्रथम निर्वाचित सरकारमा रामनारायण मिश्र मन्त्री र प्रथम संसद्को उपसभामुखमा महेन्द्रनारायण निधि चयन भएका थिए ।

राजा महेन्द्रको प्रजातन्त्रविरुद्धको सैन्य 'कु' पछि गिरफ्तारीबाट बचेका नेता तथा कार्यकर्ताहरू भारतमा शरण लिन गए । तत्कालीन परिवेशमा सुवर्ण समसेरको नेतृत्वमा पार्टीले सशस्त्र क्रान्ति गर्ने निर्णय गऱ्यो । २०१८ कात्तिक २६ गते क्रान्ति दिवसमा सत्याग्रह गर्ने उद्देश्यका साथ भारतमा निर्वासित जीवन विताइरहेका महेन्द्र नारायण निधि भारतको उमगाँवबाट लुकेर जनकपुर आइपुगेका थिए । जनकपुर रेल्वे स्टेसनलाई राणाकालदेखि नै क्रान्ति आरम्भ स्थल मानिएको थियो, त्यहींबाट नेपाली कांग्रेसको झन्डा फहराउँदै महेन्द्रनारायण निधि र बलराम नायकले "तानाशाही अन्त्य होस्, प्रजातन्त्र पुनर्स्थापित होस् र नेपाली कांग्रेस" जिन्दाबादको नारा लगाउँदै जानकी मन्दिर पुग्दा पक्राउ परेका थिए । सो समयमा उमगाँव क्याम्पबाट आएका मकेश्वरप्रसाद सिंह, नागेश्वर झा, रामचन्द्र मिश्र सहित ९ जना पक्राउ परेका थिए । त्यस्तै जलेश्वर जेलमा विघटित संसद् सदस्य बोधप्रसाद उपाध्याय र वेणीमाधव सिंह तथा सियाप्रसाद ठाकुर आदि २९ जनालाई राखिएको थियो । तीमध्ये सबैजसो २०२० साल, २०२१ र सबैभन्दा पछि बोधप्रसाद २०२६ सालमा जेल मुक्त भएका थिए (नेपाली, २०६९, पृ.२३) । अर्कोतर्फ पार्टीको क्रान्ति गर्ने निर्णयबाट उत्साहित भएका युवाहरुमध्ये दुर्गानन्द झा र अरविन्द ठाकुरले २०१८ साल माघ ९ गते जनकपुर भ्रमणमा आएका राजा महेन्द्रको सवारीमा बम नै प्रहार गरे । दुर्गानन्द झाले प्रहार गरेको बम राजा महेन्द्रलाई त लागेन तर उनी चढेको गाडीलाई भने क्षति पुऱ्यायो । दुर्गानन्द झा र अरविन्द ठाकुर दुवै पक्राउ परे । उक्त अभियोगमा दुर्गानन्द झालाई फाँसी दिइयो । उनले नै जनकपुर (महोत्तरी) का प्रथम सहिद हुने सौभाग्य प्राप्त गरेका थिए (दाहाल,२०६९,पृ.३५) ।

२०१८ सालमा नेपाललाई ७५ जिल्ला बनाउँदा समग्र महोत्तरी, धनुषा र सर्लाही गरी तीन जिल्लामा विभक्त भयो । तत्कालीन समयका राणासरकारविरोधी अथवा जनपक्षीय लेख रचना र सञ्चार माध्यमका पत्रपत्रिकाहरूमा नेपाल सन्देश, हिमालेसियाका साथै जनकपुरको अम्बिका प्रेसबाट प्रकाशित हुने ज्योति साप्ताहिक थियो (नेपाली, २०६९, पृ.२४)।

२००७ सालको परिवर्तनले २०१५ सालमा आम निर्वाचन भई लोकतान्त्रिक संविधानको जग हालेको भए पनि तत्कालीन राजा महेन्द्रले २०१७ सालमा सो संविधानको अस्तित्व समाप्त गरी जननिर्वाचित व्यक्तित्वहरूलाई नजरवन्द र कैद गर्ने कार्य भयो । नेपालमा व्याप्त यो निर^{a}्कुश राजतन्त्रात्मक व्यवस्था विरुद्ध २०१८ साल, २०२७ सालदेखि २०३२ सालसम्म कांग्रेसले सशस्त्र आन्दोलन गऱ्यो । यी आन्दोलनहरूमा प्रजातन्त्रका धेरै योद्धाहरू, होनहार सपूतहरूको अवसान हुन पुग्यो । विद्रोहको परम्परा कायम राख्दै सयौं युवा विद्यार्थीहरू निर^{a}्कुशताको विरुद्धमा उत्रिए । दुर्गानन्दको पदानुसरण गर्दै २०२९ सालमा कामेश्वर र कुशेश्वर, केशव कोइराला आदि सपूतहरुले सहादत वरण गरे (दाहाल, २०६९, पृ.३५)। २०३३ सालमा वी.पी. कोइरालाले राष्ट्रिय एकता र मेलमिलापको नीति लिएर स्वदेश फर्किएपछि नेपालको राजनीति नयाँ आयाममा प्रवेश गर्दै २०४६ को आन्दोलन भयो । यस आन्दोलनमा वामशक्ति सहित नेपाली कांग्रेसकै नेतृत्वमा संयुक्त आन्दोलन भएको थियो । यस आन्दोलनको परिणामस्वरूप निर^{a}्कुश निर्दलीय पञ्चायती व्यवस्थालाई समूल परिवर्तन गरी देशमा संवैधानिक राजतन्त्रात्मक व्यवस्थाको जग स्थापित भयो ।

२०५८ जेठ १९ को गोलीकाण्डबाट राजा वीरेन्द्रको वंशविनाशपछि देशको राजगद्दी ज्ञानेन्द्र शाहले पाए । राजगद्दीमा आसीन भएपश्चात् उनी सक्रिय राजा बन्नेतर्फ उन्मुख भए । त्यस बेला देशको संविधानको बाधा अडचन फुकाउ सम्बन्धी धारा १२७ को बारम्बार प्रयोग गर्दै अन्ततः आफै मजबुत हुन २०६१ साल माघ १९ गते सम्पूर्ण शक्ति हातमा लिई नेताहरूलाई नजरबन्दमा राख्दै सक्रिय राजतन्त्रको अभ्यास थालियो । राजाद्वारा भएको संसदीय प$\acute{C}$तिको अस्तित्वलाई संकटमा पार्ने कुत्सित कार्यले जनतालाई सडकमा उतार्नेदेखि संसद्वादी राजनीतिक दलहरूलाई लोकतान्त्रिक गणतन्त्रको बाटोमा ल्याउने काम गऱ्यो । नेपाली कांग्रेसका नेता गिरिजाप्रसाद कोइरालाको नेतृत्वमा निर्णायक लोकतान्त्रिक आन्दोलन थाल्ने समझदारी भयो । तत्कालीन समयमा माओवादी द्वन्द्वबाट उत्पन्न असहज परिस्थितिको मौका छोपी राजाले आ^{o}नो प्रभाव विस्तार गर्न खोजेको यथार्थ बुझेका गिरिजाप्रसाद

कोइरालाले माओवादीलाई पनि मूलधारमा ल्याउने प्रयत्न थाले । चरण-चरणका कुराकानी एवं छलफल पछि प्रचण्डलाई बहुदलीय प्रजातन्त्रमा ल्याउन र आफूहरू पनि गणतन्त्रलाई स्वीकार्न सहमत भई नेपाली राजनीतिलाई नयाँ धारमा प्रवाहित गर्नका लागि छलफल चलाई अन्ततः दिल्लीमा १२ बुँदे समझदारी सम्मन्न भयो (उपाध्याय, २०७३, पृ.८५)। तत्कालीन सात राजनैतिक दलहरूले दिल्लीमा माओवादीसँग निर्णायक वार्ता गरी शान्तिपूर्ण आन्दोलनको घोषणा सातदलबाटै गरिने, आन्दोलन अहिंसात्मक हुने, शान्तिपूर्ण अहिंसात्मक आन्दोलनलाई जनआन्दोलनमा परिणत गर्न माओवादीबाट भूमिगत रूपले सहयोग पुऱ्याउने निर्णय गरी २०६२ चैत्र २४ गतेदेखि देशव्यापी जनआन्दोलन सुरु भयो । सरकारबाट राज्यको साधन-स्रोत परिचालन गरेर व्यापक दमन हुँदा पनि रत्तीभर डर नमानी सडकमा उत्रेका जनताले देशभरि विरोधका आवाज बुलन्द बनाए । लाठीचार्जदेखि गोलीप्रहारसम्ममा नै सरकार उत्रिएकाले देशका प्रमुख सहरी क्षेत्रहरु तनावग्रस्त थिए । सरकारले कर्फ्यु लगाएर शक्तिको भरमा सक्दो नियन्त्रणको प्रयास गरे पनि जनतामा देखिएको लोकतन्त्रप्रतिको जागरुकताले निरङ्कुशताका विरुद्ध देश रणभूमिमा परिणत भयो र अनेक हृदयविदारक घटनाहरू घट्न पुगे (उपाध्याय, २०७३, पृ.८६)। यद्यपि जनकपुरमा कुनै त्यस्तो हिंसात्मक धटना धटेन, तर पनि नारा, जुलुसको नित्य प्रदर्शनमार्फत विरोधका आवाज बुलन्द पार्ने गतिविधिहरु पर्याप्त भएका थिए । १९ दिनसम्म चलेको उक्त विशाल जनआन्दोलनमा २२ जना नेपाली सपूतहरुले सहादत प्राप्त गरे पश्चात् राजा ज्ञानेन्द्रले घुँडा टेकेर लोकतन्त्रको घोषणा गरेका थिए । समग्रमा ०६२/०६३ को जनआन्दोलनले नेपालबाट सदियौं पहिलेदेखि स्थापित सामन्ती सत्ताको जग जुन संवैधानिक राजतन्त्रात्मक शासन पद्धतिको नाममा कायम रही अन्त्यमा शाही सत्ताको रूप ग्रहण गरेको थियो त्यो ढल्न पुग्यो । देशमा गणतन्त्रात्मक शासन व्यवस्था स्थापित भई जनतामा सार्वभौम सर्वोच्चता कायम भयो ।

मधेस आन्दोलन र जनकपुर

२०६२-६३ को जनआन्दोलन अनुसार मुलुकमा समावेशी लोकतन्त्रको वहाली, राज्यको पुनर्संरचना, संघीय राज्यको स्थापना मुख्य माग रहे पनि तात्कालिक सातपार्टी र नेकपा माओवादीको संयुक्त संसद्बाट पारित अन्तरिम संविधानमा जनआन्दोलनको मर्म र मधेसीहरुको भावनाअनुरूप संघीय राज्यको अवधारणा आएन । लोकतान्त्रिक सरकारले पनि २३८ वर्षदेखि उपेक्षित मधेसीहरुको अपेक्षा विपरीत निर्णय गर्दा मधेसीहरूको मस्तिष्कमा उपेक्षाको बिउ अङ्कुरीत भयो । परिणामस्वरुप मधेसी

जनअधिकार फोरमको अगुवाइमा मधेसी अधिकारवादी नेता तथा कार्यकर्ताहरूले सिंहदरबार अगाडि अन्तरिम संविधान जलाउने कार्य गरी गिरफ्तार भए । यसै सिलसिलामा जनकपुर, सिरहा, राजविराज, विराटनगर, वीरगञ्ज आदि सहरहरूका धेरै युवाहरु पक्राउ गरिए । यस घटनाले सम्पूर्ण मधेसमा हडताल, जुलुस, चक्काजाम जस्ता विभिन्न किसिमका विरोध कार्यक्रमहरू हुन थाले । यिनै परिवेशमा माघ ५ गते लहानमा रमेश महतोलाई माओवादीद्वारा गोलीको शिकार बनाइयो । त्यसै घटनाको ज्वालामा सम्पूर्ण मधेस होमियो र संघीय राज्यको स्थापना, क्षेत्रीय स्वायत्तताका साथ आत्मनिर्णयको अधिकार, समानुपातिक प्रतिनिधित्व, नागरिकता समस्या, व्याप्त भेदभावको अन्त्य गर्ने जस्ता मागहरू सहित उक्त आन्दोलनलाई गति प्रदान गरियो (यादव, २०६६,पृ.४४)।

तराई-मधेसमा जारी भएको आन्दोलन बिस्तारै क्षेत्रीय जातीय आन्दोलनमा परिणत हुँदै गयो । पहाडी समुदायले मधेस छाड्ने स्थिति पैदा भयो । यस आन्दोलनका क्रममा जनकपुरमा माओवादी, प्रदर्शनकारी र प्रहरीका बिच झडपहरू भए । जनकपुरको भानुचौक र मिल्स एरियास्थित माओवादी सम्पर्क कार्यालय अगाडि पटकपटक झडप भई आन्दोलनकारीले माओवादी सम्पर्क कार्यालय, जानकी प्रहरी चौकी, रामा होटल आदि स्थानमा आगो लगाउने जस्ता घटे । त्यसपछि मधेसका अन्य सहरहरूमा जस्तै जनकपुरमा आन्दोलनकारीहरूले सवारी साधनमा जथाभावी तोडफोड गर्न थाले । परिस्थितिलाई नियन्त्रणमा लिन सयौं राउन्ड हवाई फायर गर्नुका साथै कर्फ्यु लगाइयो । कर्फ्युका बेला पनि प्रदर्शन जारी नै रह्यो । यस क्रममा प्रहरीको गोली लागेर १० जनाजति घाइते भएका थिए र ती जनकपुर अञ्चल अस्पतालमा गएपछि प्रहरी प्रवेश गरी लाठी चार्ज गरेको थियो । जलेश्वरमा पनि आन्दोलनकारीले केही सरकारी कार्यालय र माओवादीको कार्यालय तोडफोड गरेको थियो । आन्दोलनको मध्यदेखि आन्दोलनकारीहरूले सरकारी कार्यालयहरूको साइन बोर्ड झिकेर त्यसमा नेपाल सरकारको स्थानमा मधेस सरकार लेख्न थालेका थिए । आन्दोलनका क्रममा जलेश्वर- जनकपुर सडक खण्डमा रुख ढालेर सडक अवरुद्ध गरिएको थियो भने प्रहरीको क्रूरता बढ्दै गई कर्फ्यु पनि जारी नै रहेको थियो । आन्दोलनका क्रममा जनकपुरका विभिन्न ठाउँमा सशस्त्र प्रहरी घरघरमा पसेर सर्वसाधारणलाई कुटपिट गर्नुका साथै महिलामाथि दुर्व्यवहार गरेको थियो (पाण्डेय,२०६६,पृ.३७) ।

विराटनगरदेखि विरगञ्जसम्मको प्रायःजसो सबै सहर बजारहरूमा यस आन्दोलनको पूर्ण प्रभाव थियो । यातायात, बजार बन्द, झडप, गोलीप्रहार र सँघारका घटनाहरू घटित भएका थिए । आन्दोलनको १३

औं दिनमा सरकारले मधेसीको मागलाई स्वीकार गऱ्यो, तर प्रधानमन्त्री गिरिजा प्रसाद कोइरालाको सम्बोधनबाट मधेसी सन्तुष्ट हुन सकेनन् । आन्दोलन जारी नै रह्यो । जनकपुरसहित सम्पूर्ण मधेसमा टायर बाल्ने, प्रधानमन्त्रीको पुत्ला जलाउने, जुलुस निकाल्ने, झडप एवं तोडफोडका घटनाहरू जारी नै रह्यो । यसैक्रममा माघ २० गते विशाल जनप्रदर्शन भयो जसमा को कांग्रेस, को कम्युनिष्ट, को फोरम केही छुट्याइएन; सबै मधेसको मुद्दामा एकजुट भए । पेसाकर्मी, नागरिक समाज, बुद्धिजीवी, अधिकारकर्मीहरू सबै सहभागी भएका थिए । आन्दोलनको क्रममा जनकपुरमा शिवशंकर यादवको ज्यान गएको थियो भने आन्दोलनको अन्त्यसम्म जनकपुरमा प्रदर्शन भएको थियो । २४ माघमा प्रधानमन्त्रीले मधेसका माग जायज भएको स्वीकार गरी पूरा गर्ने वचनबद्धता प्रकट गरियो । प्रधानमन्त्रीको सम्बोधनबाट आठ दलले २१औं दिन शान्ति सद्भावको र्‍याली निकालियो । आन्दोलन रोंकियो । फोरमले प्रधानमन्त्रीको सम्बोधन मधेसी जनताको पहिलो ऐतिहासिक विजय हो र यो आन्दोलन जनविद्रोह हो भनेको थियो । मधेसी जनअधिकार फोरमको अगुवाइमा भइरहेको आन्दोलनमा गोली बन्दुकको पर्वाह नगरी कफ्र्युको अवज्ञा गर्दै आमजनता, डाक्टर, वकिल, प्राध्यापक, शिक्षक, विद्यार्थी, कर्मचारी, महिला, बालबालिका सबैद्वारा विभिन्न स्वरूपका आन्दोलनका कार्यक्रमहरू गरी आन्दोलनलाई बल प्रदान गरेका थिए । २१ दिनसम्म चलेको यस ऐतिहासिक आन्दोलनमा ३८ जना मधेसी सपूतहरूले सहादत प्राप्त गरे (यादव,२०६६,पृ.४४)। समग्रमा २०६३ सालको मधेसआन्दोलन अधिकारप्राप्तिका लागि जनविद्रोह थियो न कि साम्प्रदायिक संघर्ष । संघीयता प्राप्त भयो । मधेसी अझै पनि अधिकारप्राप्तिका लागि संघर्षरत नै छन् ।

४. निष्कर्ष

नेपालमा लोकतान्त्रिक आन्दोलनको सूत्रपात जहानियाँ राणाशासनका विरुद्ध १९९३ सालमा प्रजा परिषद्को गठन र योगदानबाट भएको थियो । यसै पृष्ठभूमिमा २००७ सालको जनक्रान्तिबाट राजाको सक्रियतामा देशमा प्रजातन्त्रको स्थापना भयो । २०१७ सालमा राजा महेन्द्रबाट प्रजातन्त्रलाई मासेर पञ्चायती व्यवस्थाको जग हाली निरª्कुश शासन पÇतिको सूत्रपात गरियो । राजाले सत्ता हत्याएपश्चात् बहुदलीय प्रजातन्त्र स्थापनाको लामो संघर्ष चल्यो । राजाको निरª्कुश सोच विरुद्ध समय-समयमा संघर्षका अनेकौं गतिविधिहरू भए । २०४२ सालमा सत्याग्रह र २०४६ सालमा जनआन्दोलन भयो । २०४६ सालको ऐतिहासिक जनआन्दोलनबाट निर्दलीय पञ्चायती व्यवस्थाको

अन्त्य भई बहुदलीय व्यवस्थाको जग बसे पनि शासन पÇतिमा शाही सत्ताका रूपमा निरª्कुशता विद्यमान नै रहेकाले जनता सार्वभौमसत्ताका सँगसँगै गणतन्त्र र संघीयताका लागि ०६२/०६३ को जनआन्दोलनमा होमिए । अन्ततः नेपालमा सदियौंदेखि स्थापित राजतन्त्रात्मक शासन पÇतिका नाममा व्याप्त सामन्ती शाही सत्ताको अवसान भयो । देशमा गणतन्त्रात्मक शासन व्यवस्था स्थापित भई जनतामा सार्वभौम सर्वोच्चता कायम भयो । मधेस आन्दोलनको उपलब्धि स्वरूप संघीयता प्राप्त भयो ।

समग्रमा जनकपुर राजनीतिक जनचेतना अभिवृद्धिको क्षेत्रमा महŒवपूर्ण रहेको छ र यहाँको जनजीवनमा लोकतन्त्रप्रति समर्पणको गौरवगाथा आन्दोलनहरूमा खेलिएको जनकपुरको भूमिकाबाट सिद्ध हुन्छ । (मल्लिक,२०७४,पृ.३५)। यी स्मरणीय तथ्यहरूले जनकपुर र यस भेगका जनमनलाई गौरवान्वित गरिरहने छ ।

सन्दर्भ सूची

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प्रतिनिधिसभा र संविधानसभामा राजनैतिक दलहरूको उपस्थिति

डा. ढाकाराम सापकोटा

उप-प्राध्यापक, इतिहास विभाग

रत्नराज्यलक्ष्मी क्याम्पस

सार संक्षेप

२००७ सालको आन्दोलनले राणाशासनको अन्त्य गरेपछि नेपालमा प्रजातन्त्र स्थापना भयो । राजा त्रिभुवनबाट भएको २००७ फागुन ७ को शाही सम्बोधनमा विधानसभाको निर्वाचन गर्ने भनिए पनि २०१५ सालमा संसद्का लागि निर्वाचन भयो । निर्वाचनमा राणाशासन विरुद्ध आन्दोलन गरेका दलको वर्चस्व रहेको थियो । २०१७ सालको शाही कदमपछि राजनैतिक दलहरूमाथि प्रतिबन्ध लागेको हुँदा दलहरूको कुनै चर्चा भएन । २०४६ सालको संयुक्त जनआन्दोलनपछि दलहरूमाथिको प्रतिबन्ध फुकुवा भयो । त्यसपछि २०४८, २०५१ र २०५६ सालमा भएका आमनिर्वाचनमा दलहरूका बिच प्रतिस्पर्धा भयो । २०६२/६३ को जनआन्दोलनले २४० वर्षदेखिको राजतन्त्रलाई अन्त्य गरेसँगै दुईपटक संविधानसभाको र एकपटक प्रतिनिधिसभाको निर्वाचन भयो । २००७ देखि २०७४ सम्मको अवधिमा ८ वटा निर्वाचन भए । ती निर्वाचनमा राणाशासनविरुद्ध आन्दोलन गर्ने उद्देश्यले गठन भएका राजनैतिक परिवर्तनसँगै खुलेका राजनैतिक दलहरू प्रतिस्पर्धी बनेका भए तापनि प्रतिनिधिसभामा भएको दलको उपस्थिति स्वयम् दलका कार्यशैलीमा भर परेको देखिन्छ ।

मुख्य शब्दावली : जनादेश, मिलीजुली, राजसंस्था, वाममोर्चा, गणतन्त्र, संविधानसभा, सम्बोधन ।

विषयप्रवेश

कोतपर्वपछि नेपालमा राणाशासनको उदय भयो । राणाशासन जहानियाँ र निरङ्कुश भएको हुँदा त्यस कालखण्डमा जनता जान्नेबुझ्ने भए आफ्ना हक-अधिकारप्रति सचेत हुने ठानी शिक्षामाथि प्रतिबन्ध लगाइएको मात्र होइन, पत्रपत्रिका पढ्न तथा रेडियो सुन्न र बाहिरी जगत्सँगको सम्पर्कबाट समेत टाढा राख्न सक्दो कोसिस गरिएको थियो । तथापि प्रथम र दोस्रो विश्वयुद्धले ल्याएको परिवर्तित वैचारिकता र राजनैतिक दृष्टिकोण राणाशासकहरुका लागि चुनौती बन्दै गयो । परिणामत: नेपालमा

विभिन्न सामाजिक, सांस्कृतिक, साङ्गठनिक गतिविधिका अतिरिक्त प्रचण्ड गोर्खा, प्रजा परिषद् नेपाली राष्ट्रिय कांग्रेस, नेकपा लगायतका राजनैतिक सङ्गठहरूसमेत क्रमशः स्थापित हुँदै गए । बिसौँ शताब्दीको मध्यसम्म आइपुग्दा एसिया र अफ्रिकामा आएको जागरणका कारण साम्राज्यवादी शक्तिहरूको असफलतासँगै त्यस क्षेत्रमा कैयौँ स्वतन्त्र राज्यहरूको उदय भयो । त्यसै क्रममा भारत, पाकिस्तान, बर्मा, इन्डोनेसिया, घानाजस्ता देशहरूको स्वतन्त्रताले नेपाललाई पनि प्रभावित पाऱ्यो (राणा, सन् १९९५, पृ.२०९-२१०) । विश्वमा आएको स्वतन्त्रता सम्बन्धी अवधारणालाई नेपालका राणाशासकले नियन्त्रण गर्न चाहेर पनि हुने अवस्था थिएन । फलतः देशभित्रैबाट राणाशासनका बिरुद्ध राजनैतिक दलहरूले आन्दोलन गर्दै गए । आन्दोलनलाई राजाको समेत साथ-सहयोग रह्यो । राणाशासकले भने बदलिँदो अन्तर्राष्ट्रिय परिस्थितिको विचार गरी मित्रशक्ति बदली जीर्ण भएको शक्ति टिकाइराख्ने असफल कोसिस गरिरहे तापनि सफल हुन सकेनन् । राजनैतिक दल र राजा मिलेर गरेको आन्दोलनबाट १०४ वर्षदेखि चल्दै आएको राणाशासनको अन्त्य भई नेपालमा प्रजातन्त्रको स्थापना भयो ।

लेखको उद्देश्य र अध्ययन विधि

२००७ सालपछिको करिव ७ दशकमा भएका निर्वाचनपछि प्रतिनिधिसभा/संविधानसभामा राजनैतिक दलहरुको उपस्थितिको लेखाजोखा गर्नु प्रस्तुत अध्ययनको उद्देश्य रहेको छ । यस अध्ययनमा समकालीन नेपाली राजनीतिका विषयमा लेखिएका पुस्तक, नेपालमा विभिन्न समयमा जारी भएका संविधान, पार्टीका दस्तावेज, विभिन्न सञ्चार माध्यममा प्रकाशित समाचारलाई स्रोतका रूपमा उपयोग गरिएको छ । यो लेख नेपालको राजनैतिक इतिहाससँग सम्बन्धित भएको हुँदा यसमा सिस्टम थ्योरीको सिद्धान्तअनुसार वर्णनात्मक र विश्लेषणत्मक विधि अँगालिएको छ ।

प्रजातन्त्र स्थापना र शाही सम्बोधन

राजा त्रिभुवनबाट २००७ साल फागुन ७ मा भएको शाही घोषणाले राणाशासनलाई विधिवत् अन्त्य गऱ्यो । त्यसमा राज्यसत्ता अब कसरी अघि बढ्छ भन्ने पनि उल्लेख थियो । उक्त सम्बोधनमा राजा

त्रिभुवनले 'हाम्रा प्रजाको शासन अब उप्रान्त निजहरुले निर्वाचन गरेको एक वैधानिक सभाले तर्जुमा गरेको गणतन्त्रात्मक विधानको अनुसार होओस् भन्ने अहिले हाम्रो इच्छा र निर्णय भएको' भनी उल्लेख गरेका थिए (देवकोटा, २०५८ , पृ.९६) । देशको राजनैतिक स्वरूप निर्धारण गर्न दुई वर्षभित्रै संविधानसभाको चुनाव गराउने कुराले महŒव पाउन सकेन वरु राजनैतिक दलहरुको सारा ध्यान सत्तातर्फ केन्द्रित हुँदै गयो । राजालाई खुसी पार्न सके सत्ता पाउने सजिलो बाटो तय हुन थाल्यो । संविधानसभाको चुनाव गर्ने गरी राजाले गरेको घोषणालाई दलहरुले नै विवादको विषय बनाए (मानन्धर र शर्मा, २०५३ , पृ. ५१) । निर्वाचन विधानसभा वा संसद् केका लागि गर्ने भन्ने कुराको विवादसँगै ७ वर्ष गुज्रिसक्दा पनि अन्योल कायमै थियो । त्यस्तै अन्योलका बिच २०१४ माघ १९ गते नयाँ संविधानको मस्यौदा निर्माण गर्न आयोग गठन गरिने र सोही संविधानका आधारमा संसद्को निर्वाचन गर्ने कुरा राजा महेन्द्रबाट घोषणा भयो ।

राजनैतिक दलहरू विवादित बनिरहेको विषयमा आगामी निर्वाचन संसद्का लागि हुने भनी राजाले अन्योलको अन्त्य गरिदिए । त्यसपछि संसदीय निर्वाचनका कुराले महŒव पाउन थाले । २०१४ फागुन महिनामा राजाद्वारा संसद्को निर्वाचन २०१५ फाल्गुण ७ गतेदेखि विभिन्न चरणमा गर्ने भनी घोषणा गरियो । यद्यपि संसद्को आमचुनाव तोकिएको मितिमा हुन्छ भन्ने कुरामा धेरैमा विश्वास थिएन । त्यसैले चुनाव सुरु हुनुभन्दा डेढ महिना पहिलेसम्म पनि राजनैतिक दलहरूले चुनाव प्रचारप्रसार अभियानलाई गम्भीरतापूर्वक लिएनन् । फागुन ७ गतेदखि हुने निर्वाचनका लागि माघ महिनाको दोस्रो साताभा मात्र विभिन्न दलका चुनावी घोषणापत्रहरू प्रकाशमा आएका थिए । पार्टीका घोषणापत्रहरू जनसमक्ष आउँदासम्म पनि देशको संविधान कस्तो खालको बन्ने हो भन्ने अन्योल यथावत् थियो तापनि राजनैतिक दलहरूको ध्यान क्रमशः निर्वाचनतिर गइरहेको थियो ।

२०१५ सालको आमनिर्वाचन र प्रतिनिधिसभामा पुगेका दलहरू

नेपालमा हुन गइरहेको आमनिर्वाचन राज्यका निकायदेखि आमनागरिकका लागि पहिलो अनुभव थियो । राणाशासनका विरुद्धको आन्दोलनमा लागेका दलहरू जनतासँग परिचित रहेका भए पनि अन्य दलहरूका लागि चुनौत्ती थियो । नागरिकमा चेतनाको अभाव थियो । मतदाता नामावलीमा नाम लेखाउने, मत खसाल्न सिकाउनेदेखि चुनावको महŒव बुझाउने कुरा राज्यपक्षका लागिसमेत

चुनौत्तीपूर्ण नै थियो । यी सबै कुराको व्यवस्थापन गर्दै नेपाललाई १०९ निर्वाचन क्षेत्रमा विभाजन गरी २०१५ फाल्गुण ७ बाट सुरु भएको निर्वाचन २०१६ वैशाख २७ मा सम्पन्न भएको थियो । उक्त निर्वाचनमा भाग लिएर प्रतिनिधिसभामा पुगेका दलहरू निम्नअनुसार थिए :

तालिका १

प्रतिनिधि सभा निर्वाचनमा भागलिएका राजनैतिक पार्टीहरूको नाम र मतपरिणाम

क्र.सं.	राजनैतिक पार्टीको नाम	उम्मेदवार सङ्ख्या	विजयी सङ्ख्या	जम्मा प्राप्त मत	मत प्रतिशत
१.	नेपाली कांग्रेस	१०८	७४	६६६,८९८	३७.२२
२.	नेपाल राष्ट्रवादी गोरखा परिषद्	८६	१९	५०५,११८	१७.०३
३.	संयुक्त प्रजातन्त्र पार्टी	८६	५	१७७,४०८	९.९०
४.	नेपाल कम्युनिस्ट पार्टी	४७	४	१२९,१४२	७.२०
५.	नेपाल प्रजापरिषद् आचार्यगुट	४६	२	५३,०३८	२.९६
६.	नेपाल प्रजापरिषद् मिश्रगुट	३६	१	५९,८२०	३.३३

स्रोत : देवकोटा, २००१, पृ. ५९९

निर्वाचन आयोगले कम्तीमा २२ स्थानमा चुनाव लड्ने राजनैतिक दललाई मात्रै राष्ट्रिय दलको रूपमा मान्यता दिई चुनाव चिन्ह दिने निर्णय गरेको थियो । यस निर्णयअनुसार ७ वटा दलले राष्ट्रिय दलको मान्यता पाएर निर्वाचन लडेका थिए । तीमध्ये नेपाली कांग्रेस ७४ स्थानमा विजयी भएर सत्ताको नेतृत्व गर्न पुग्यो । नेपाल राष्ट्रवादी गोरखा परिषद् प्रमुख प्रतिपक्षी दल बन्यो भने त्यसबाहेक अन्य ४ वटा दलको प्रतिनिधिसभामा उपस्थिति रहेको थियो । निर्वाचनमा राणाशासन विरुद्ध लडेका दलहरू र लामोसमय सत्ता चलाएका राणापक्षबाट खुलेका दलबिच प्रतिस्पर्धा रहेको थियो ।

निर्वाचन परिणामअनुसार विश्वेश्वरप्रसाद कोइरालाको नेतृत्वमा नेपालको पहिलो जननिर्वाचित सरकार गठन भयो । दुईतिहाइको जनमत पाएर सरकार गठन गरेको भए तापनि तत्कालीन संविधानको धारा ५५ जुनसुकै बेला सरकारको गर्धनमा बजारिने सम्भावना कायमै थियो । त्यो बेला संविधान राजाद्वारा र राजाका लागि निर्माण गरिएको अवस्था थियो । संसद्को निर्वाचनपछि कूटनीतिक रूपमा राजा सक्रिय

थिए । उनी बेलायतका राजा जर्ज तृतीयजस्तै शक्तिशाली शासक बन्न चाहन्थे (चटर्जी, १९७७, पृ. ९) । त्यति बेला २००७ सालको क्रान्तिमा राजाको पनि भूमिका रहनु, राजाले मात्र राष्ट्रिय नेतृत्व प्रदान गर्नसक्ने कुरामा सबै सहमत हुनु र दलगत राजनीतिदेखि अलग रहेकोमा राजाको पनि संसदीय व्यवस्थाको विकासमा प्रभावकारी भूमिका हुनुपर्ने आवश्यकता महसुस गरी संविधानमा राजालाई अधिकार दिइएको थियो (वैद्य र शर्मा, २०५३, पृ. ७७) । क्रमशः देशमा नेपाली कांग्रेस नेतृत्वको सरकारको विरोधको वातावरण देखापरेकाले राजा महेन्द्रलाई आफ्नो महŒवाकाङ्क्षी योजना पूरा गर्ने अवसर मिल्न गयो ।

२०१७ सालको शाही कदम र पञ्चायती व्यवस्था

सरकारप्रति जनताको विश्वास घट्दै गएको र राजा महेन्द्रको शासनसत्ताप्रति बढ्दै गएको महŒवाकाङ्क्षाको परिणाम स्वरूप २०१७ पौष १ गते शाही कदम चालियो । उक्त कदमपछि निर्वाचित सरकार अपदस्थ भयो । संसद् विघटन गरियो र दलमाथि प्रतिबन्ध लगाउने काम भयो । पञ्चायती व्यवस्थालाई जनजीवनमा आधारित राष्ट्रिय परम्परा सुहाउँदो तलैदेखि उठी सम्पूर्ण जनताको क्रियाशील सहयोग पाउने र विकेन्द्रीकरणको सिद्धान्तलाई अँगाल्ने दलविहीन प्रजातान्त्रिक पञ्चायत प्रणाली (नेपालको संविधान २०१९, २०४४, पृ. १–२) भनी व्याख्या गरियो । तर व्यवस्थाका विरुद्धमा कुनै टीकाटिप्पणी तथा आलोचना गर्न पाइँदैनथ्यो । संविधानमा सार्वभौमसत्ता र कार्यकारिणी अधिकार राजामा निहित रहने कुरा प्रस्ट उल्लेख थियो । यति हुँदा हुँदै पनि प्रतिबन्धित अवस्थामा रहेका राजनैतिक दलहरू सांगठनिक हिसाबले जनताको तहसम्म पुगेको हुँदा देशमा दरबार, कांग्रेस र वामपन्थी गरी तीनवटा शक्ति थिए । तिनीहरूमध्ये दरबारले राज्यको पूरै शक्ति हत्याएर राजनैतिक दलहरूलाई पाखा लगाई शासन गरेको थियो । नेका र वामपन्थी दलहरू आपसमा आरोप-प्रत्यारोपमा सीमित थिए ।

आपसी द्वन्द्वले कमजोर देखिएका राजनैतिक दलहरूले विश्वजगत्मा आएको परिवर्तन र स्वयम् दलहरूले लिँदै र भन्दै आएको नीति र व्यवहारमा रहेको कमजोरीलाई बुझ्दै गए । फलतः आफूहरूका बिचमा रहेको दूरी नै पञ्चायती व्यवस्थालाई चलाइराख्ने आधार भएको ठहर गर्दै २०४६ फागुन ७ देखि संयुक्त जनआन्दोलन गर्ने निर्णयमा पुगे । करिब ३० वर्षदेखि चल्दै आएको पञ्चायती व्यवस्थाबाट जनता सन्तुष्ट थिएनन् । फलतः राजनैतिक दलहरूले घोषणा गरेको मितिबाट सुरु भएको

जनआन्दोलनमा नागरिकको उत्साहजनक उपस्थिति रह्यो । राष्ट्रिय र अन्तर्राष्ट्रिय रूपमा आन्दोलनकारीले समर्थन पाँउदै गए । सरकारी पक्षबाट आन्दोलन दबाउन अनेक कदम चालिएका भए पनि असफल हुँदै गए । आन्दोलनप्रतिको बढ्दो जनलहर देखेर शासकहरू पनि बिस्तारै हताश हुँदै गए । आन्दोलनकारी बनेका आफ्नै नागरिकसँग जुध्नु कुनै हिसाबले पनि उपयुक्त नहुने ठानी चैत्र २६ गते राजा वीरेन्द्र स्वयम्ले प्रतिबन्धित दलका नेताहरूसँग बसेर छलफल गरे । छलफलपछि राजाले दलहरूमाथि लगाएको प्रतिबन्ध हटाउने र दलहरूले सञ्चालन गरेको आन्दोलन रोक्ने कुरामा सहमति भयो (कार्की, २०६९, पृ. ८०) । फलतः ४९ दिन चलेको जनआन्दोलन टुङ्गिन पुग्यो ।

२०४८ सालको आमनिर्वाचन र प्रतिनिधिसभामा दलहरूको उपस्थिति

लामो समय प्रतिबन्धित अवस्थामा रहेका राजनैतिक दलहरू २०४६ सालको जनआन्दोलनपछि खुल्ला भए । खुल्ला राजनीतिमा पुराना राजनैतिक दलहरू आफ्ना गतिविधि बढाउँदै जान थाले भने नयाँ राजनैतिक दलहरूसमेत खुल्न थाले । खुल्ला राजनैतिक परिवेशमा दलहरू खोलिने कुरा स्वाभाविकै थियो । प्रजातन्त्र पुनःस्थापनापछिको पहिलो आमनिर्वाचनमा भाग लिन नयाँ तथा पुराना गरी ४७ वटा पार्टीहरूले निर्वाचन आयोगमा निवेदन दिएका भए पनि ४४ वटा पार्टी दर्ता भएका थिए । निर्वाचनमा भने २६ वटा पार्टीले मात्र उम्मेदवार खडा गरेका थिए । उक्त निर्वाचनमा राजनैतिक दलहरूले प्राप्त गरेको मत परिणामसँगै प्रतिनिधिसभामा रहेको उपस्थिति निम्नअनुसार रहेको देखिन्छ ।

तालिका २

प्रतिनिधिसभामा भाग लिएका राजनैतिक पार्टीहरूको नाम र परिणाम

क्र.सं.	राजनैतिक पार्टीहरूको नाम	उम्मेदवार सङ्ख्या	विजयी सङ्ख्या	प्राप्त मत	मत प्रतिशत
१.	नेपाली कांग्रेस	२०४	११०	२,७५२,४५२	३७.७५
२.	नेपाल कम्युनिस्ट पार्टी (एमाले)	१७७	६९	२,०४०,१०२	२७.९८
३.	संयुक्त जनमोर्चा नेपाल	७०	९	३५१,९०४	४.८३
४.	नेपाल सद्भावना पार्टी	७५	६	२९८,६१०	४.१०
५.	राष्ट्रिय प्रजातन्त्र पार्टी (चन्द)	१५४	३	४७८,६०४	६.५६
६.	नेपाल मजदुर किसान पार्टी	३०	२	९१,३३५	१.२५
७.	नेकपा (प्रजातन्त्रवादी)	७५	२	१७७,३२३	२.४३
८.	राष्ट्रिय प्रजातन्त्र पार्टी (थापा)	१६३	१	३९२,४९९	५.३८
जम्मा			२०५		

स्रोत : नेपालका आम निर्वाचनहरू, २०५६, पृ. ३९

यसपटकको निर्वाचनमा २६ वटा राजनैतिक दलले भाग लिएको भए तापनि ८ वटा दलको मात्र प्रतिनिधिसभामा उपस्थिति रहेको थियो । २०१५ सालको आमनिर्वाचनबाट प्रतिनिधिसभामा पुगेका ६ वटा दलमध्ये नेका र नेकपाले २०४८ सालमा पहिलो र दोस्रो स्थान हासिल गरेका थिए भने अन्य दलहरू राजनीतिक क्षितिजबाट क्रमश ओझेल पर्दै गए । २०१५ सालमा एउटै रहेको नेकपा २०४८ सालसम्म आइपुग्दा विभिन्न घटकमा विभाजित भएकाले नेकपा नामका ४ वटा वामघटक प्रतिनिधिसभामा पुगेका थिए । पञ्चायती व्यवस्थामा पञ्चका नामले परिचितहरूले नयाँ राजनैतिक दल खोलेर प्रतिनिधिसभामा पुगेका थिए । क्षेत्रीय दलका रूपमा गठन भएको सद्भावना पार्टीको पनि प्रतिनिधि सभामा उपस्थिति रहेको थियो । दलहरूलाई व्यवस्थित तुल्याउने सन्दर्भमा गरिएको व्यवस्थाअनुसार झरेको मतको ३ प्रतिशत ल्याउने दलले राष्ट्रिय मान्यता पाउने व्यवस्था थियो (नेपालको अधिराज्यको संविधान २०४७ : ५६) । सोहीअनुसार ६ वटा राष्ट्रिय मान्यताप्राप्त दलका रूपमा र ६० वटा राष्ट्रिय मान्यता प्राप्त नभएका दलका रूपमा निर्वाचन आयोगमा दर्ता भएका थिए ।

२०५१ सालको मध्यावधि आमनिर्वाचन र प्रतिनिधिसभामा पुगेका दलहरू

२०४८ को आमनिर्वाचनमा जनताले नेकालाई बहुमतसहित पाँच वर्ष शासन गर्ने अभिमत दिएका थिए । तर पार्टीभित्रको आन्तरिक कलहले गर्दा जनताले दिएको अभिमतलाई कुठाराघात गर्ने काम भयो । प्रधानमन्त्री गिरिजाप्रसाद कोइरालाले मध्यावधि निर्वाचनको मिति तोक्न र प्रतिनिधिसभाको विघटन गर्न राजासमक्ष सिफासिर गरे । उक्त सिफारिस संवैधानिक हिसाबले ठिक देखिए पनि व्यावहारिक र नैतिक दृष्टिले बेठिक थियो । तर पनि संसद विघटनपछि प्रधानमन्त्रीले सिरफारिस गरेको मितिमा मध्यावधि निर्वाचन भयो । निर्वाचनमा सहभागी राजनैतिक दलहरूमध्ये प्रतिनिधिसभामा पुग्न सफल दलहरु निम्नअनुसार रहेका थिए :

तालिका ३

प्रतिनिधिसभामा भाग लिएका राजनैतिक पार्टीहरूको नाम र परिणाम

क्र.सं.	राजनैतिक पार्टीहरूको नाम	उम्मेदवारको सङ्ख्या	निर्वाचित सङ्ख्या	प्राप्त मत	मत प्रतिशत
१.	नेपाल कम्युनिस्ट पार्टी (एमाले)	१९६	८८	२,३५२,६०१	३०.८५
२.	नेपाली कांग्रेस	२०५	८३	२,५४५,२८७	३३.३८

३.	राष्ट्रिय प्रजातन्त्र पार्टी	२०२	२०	१,३६७,१४८	१७.९३
४.	नेपाल मजदुर किसान पार्टी	२७	४	७५,०७२	०.९८
५.	नेपाल सद्भावना पार्टी	८६	३	२६५,८४७	३.४९

स्रोत : अन्तर्राष्ट्रिय मञ्च,२०५२, पृ. ४०

२०४८ सालको निर्वाचनमा २६ वटा राजनैतिक दलले निर्वाचनमा भाग लिएका थिए । यसपटक त्यो सङख्या घटेर २४ हुन पुगेको थियो । तीमध्ये ५ वटा दलमात्र प्रतिनिधिसभामा पुग्न सकेका थिए । १९ वटा दलका कुनै पनि उम्मेदवार विजयी भएनन् । अघिल्लोपटक राप्रपा नामका दुई पार्टी रहेकोमा यसपटक एउटै भएका थिए भने संयुक्त जनमोर्चाले निर्वाचन बहिष्कार गरेको हुँदा प्रतिनिधिसभामा पुग्ने दलहरुको सङ्ख्या घटेको थियो । अघिल्लोपटक ४ वटा वामघटकको प्रतिनिधिसभामा उपस्थिति रहेकोमा यसपटक केवल २ घटकमात्र पुगेका थिए । मध्यावधि निर्वाचनमा भाग लिने मान्यता पाएका कुल ७१ वटा राजनैतिक दलहरूले पार्टीको विधानसहित निर्वाचन आयोगमा पार्टी दर्ताका लागि निवेदन दिएका भए तापनि धेरैजसो पार्टीले उम्मेदवार उठाउन सकेका थिएनन् ।

२०५६ सालको आमनिर्वाचन र प्रतिनिधि सभामा दलहरूको उपस्थिति

२०५१ सालको मध्यावधि निर्वाचनमा कुनै पनि दलले बहुमत ल्याउन नसकेको हुँदा सरकार गठन र विघटन हुने क्रम निकै चल्यो । बहुमत पुऱ्याउने नाममा दलहरूका बिच अपवित्र गठबन्धनहरू भए । जनताले निर्वाचित गरेका कतिपय माननीयहरू खसीबोका जसरी खरिद बिक्रीका बस्तु बने । त्यस खालको अस्थिरताको अन्त्य नयाँ निर्वाचनबाट मात्र हुनसक्थ्यो । त्यसैले राजनैतिक दलहरूको सहमतिमा २०५६ सालमा आमनिर्वाचन भयो । उक्त निर्वाचनमा भाग लिएकामध्ये प्रतिनिधिसभामा पुग्न सफल दलहरु निम्नअनुसार रहेका थिए:

तालिका ४

प्रतिनिधिसभामा भाग लिएका राजनैतिक पार्टीहरूको नाम र परिणाम

क्र.सं.	राजनैतिक पार्टीहरूको नाम	उम्मेदवार सङ्ख्या	विजयी सङ्ख्या	प्राप्त मत	मत प्रतिशत
१.	नेपाली कांग्रेस	२०५	१११	३,२१४,७८६	३६.१४

२.	नेकपा एमाले	१९५	७१	२,७३४,५६८	३०.७४
३.	राष्ट्रिय प्रजातन्त्र पार्टी	१९५	११	९०२,३२८	१०.१४
४.	नेपाल सद्भावना पार्टी	६८	५	२७८,४३५	३.१३
५.	राष्ट्रिय जनमोर्चा	५३	५	१२१,४२६	१.३७
६.	संयुक्त जनमोर्चा नेपाल	४०	१	७४,६६९	०.८४
७.	नेपाल मजदुर किसान पार्टी	४१	१	४८,६८५	०.५५
	जम्मा		२०५		

स्रोत : नेपालका आमनिर्वाचनहरू, २०५६, पृ. ८०

२०५६ मा निर्वाचनमा भाग लिने दलहरूको सङ्ख्या अघिल्लोपटक भन्दा बढेको थियो । यसपटकको निर्वाचनमा ३९ वटा राजनैतिक दलहरूले आफ्ना उम्मेदवार उठाएका थिए तर ७ वटा दलमात्र प्रतिनिधिसभामा पुग्न सकेका थिए । २०५१ को मध्यावधिमा ५ वटा दल प्रतिनिधिसभामा पुगेकोमा यसपटक त्यो सङ्ख्या बढेको थियो । राष्ट्रिय जनमोर्चा र संयुक्त जनमोर्चा नेपाल नामका दुई वामघटक यसपटकको निर्वाचनसँगै प्रतिनिधिसभामा उपस्थित भएका थिए । यीबाहेक अघिल्लोपटक प्रतिनिधिसभामा पुगेका ५ वटा दलहरू नै थिए । दलहरूले पाएको मतलाई हेर्दा उनीहरूको पोजिसनमा फेरबदल आएको थियो । २०५३ मा राप्रपा र २०५४ मा नेकपा एमाले विभाजन भएका थिए । दलहरूको सङ्ख्या बढाउने कुरामा यसले पनि भूमिका खेलेको थियो ।

२०६२/६३ को दोस्रो संयुक्त जनआन्दोलन

२०४६ सालमा नेपाली कांग्रेस र वाममोर्चाले गरेको संयुक्त आन्दोलनबाट प्रजातन्त्र पुनर्स्थापना भयो । संसदीय व्यवस्थामा आस्था राख्ने दलहरू र राजाका बिच सहकार्य भयो । संसदीय व्यवस्थाको विकल्प खोज्ने नेकपा माओवादीले २०५२ सालबाट सशस्त्र विद्रोहको बाटो समायो जुन विद्रोहले संसद्वादी दल र दरबारलाई गिजोल्ने काम गऱ्यो । २०५८ जेठ १९ भएको दरबार हत्याकाण्डपछि ज्ञानेन्द्र राजा भए । लामोसमय संसद्वादी दल र माओवादी बिच दुश्मनी भएको हुँदा मिल्न नसक्ने, राज्य र विद्रोही दुवै पक्षबाट पीडित भएका जनताको समर्थन आफूले पाउने विश्वासका साथ राजा ज्ञानेन्द्रले राजनीतिप्रति चासो बढाए । फलतः संसद्वादी दलहरूलाई किनारा लगाउने उद्देश्यले अगाडि बढे । दलहरू सत्तामा रहेको बेला वार्ता भए पनि दरबारको निर्णय कुर्नुपर्ने भएपछि असन्तुष्ट रहेको माओवादीले २०५८

सालपछि अबको वार्ता मालिक (राजा) सँगै गर्ने भन्दै आएको थियो । मालिकसँग वार्ता गर्ने माओवादी भनाइपछि दरबारले शक्ति आफ्ना हातमा लिने गरी अघि बढ्यो । माओवादी र राजनैतिक दलहरू आपसमा मिल्न सक्दैनन् भन्ने दरबारको विश्लेषण थियो (शाह, २०६८, पृ.७९) । राजाले राजनीतिमा चासो दिन थालेपछि माओवादीसँग विभिन्न चरणमा वार्ता पनि भए । यद्यपि माओवादीले दरबार हत्याकाण्डपछि राजनैतिक दललाई पाखा लगाई राज्यशक्ति राजामा केन्द्रित गराइ सोझै राजासँग वारपारको वार्ता वा मुठभेड गर्ने रणनीति बनाएको थियो (थापा, २०६९, पृ.२४७) । मालिकसँग वार्ता गर्ने भन्दै आएको माओवादी सुरुमा उत्साहित भयो । केही चरणका वार्ता भए पनि आफै शक्तिशाली हुने बाटो रोजेका राजाबाट माग सम्बोधन नहुने देखेर निरङ्कुश राजतन्त्रका बिरुद्ध संसद्वादी दलसँग मिलेर जान सक्ने गरी पार्टी नीति लियो । त्रिपक्षीय रूपमा रहेका शक्तिहरूमध्ये दुई शक्ति एक ठाउँमा उभिँदा तेस्रो कमजोर हुनु स्वाभाविकै थियो । राजाबाट प्रतिपक्ष बनाइएका संसद्वादी सातदल र सशस्त्र विद्रोहमा रहेको माओवादीका बिच निरङ्कुश राजतन्त्रका विरुद्ध संयुक्त रुपमा अगाडि बढ्ने गरी २०६२ को मङ्सिरमा भारतमा बाह्रबुँदे समझदारी भयो (शर्मा, २०७०, पृ.२०८) । त्यसैको जगमा टेकेर भएको २०६२/६३ को आन्दोलनले २४० वर्षदेखिको राजतन्त्रलाई अन्त्य गर्दै गणतन्त्र स्थापना गऱ्यो ।

संविधानसभाको पहिलो निर्वाचनपछि संविधानसभामा पुगेका दलहरू

१० वर्षे सशस्त्र विद्रोहमा रहेको माओवादी २०६२/६३ को जनआन्दोलनपछि शान्तिपूर्ण राजनीतिमा आयो । आन्दोलनपछि गठन भएको अन्तरिम सरकारमा सहभागी भयो । त्यही सरकारले २०६४ चैत्र २८ मा संविधानसभाको निर्वाचन गरयो । निर्वाचन प्रत्यक्ष र समानुपातिक गरी दुई प्रकारले हुने गरी व्यवस्था मिलाइएको थियो । त्यसका लागि प्रत्यक्ष निर्वाचन २४० सिट र समानुपातिक ३३५ सिट निर्धारण गरिएको थियो (नेपालको अन्तरिम संविधान २०६३, पृ.२१) । मतदाताले प्रत्यक्षमा उम्मेदवार र समानुपातिकमा पार्टी छान्नुपर्दथ्यो । संविधान सभाको उक्त प्रत्यक्ष निर्वाचनमार्फत निर्वाचित भएर संविधानसभामा पुग्ने दलहरू निम्नअनुसार रहेका थिए :

तालिका ५

संविधानसभामा भाग लिएका राजनैतिक पार्टीहरूको नाम र परिणाम

क्र.सं.	राजनैतिक पार्टीहरूको नाम	उम्मेदवार सङ्ख्या	विजयी सङ्ख्या	प्राप्त मत	मत प्रतिशत

१.	नेपाल कम्युनिस्ट पार्टी माओवादी	२४०	१२०	३,१४५,५१९	३०.५२
२.	नेपाली कांग्रेस	२४०	३७	२,३४८,८९०	२२.७९
३.	नेकपा एमाले	२३९	३३	२,२२९,०६४	२१.६३
४.	मधेसी जनअधिकार फोरम	१०३	३०	६३४,१५४	६.१५
५.	तराई मधेस लोकतान्त्रिक पार्टी	९४	९	३४५,५८७	३.३५
६.	सद्भावना पार्टी	८७	४	१७४,०८६	१.७२
७.	जनमोर्चा नेपाल	२०३	२	१३६,८४६	१.३३
८.	नेपाल मजदुर किसान पार्टी	९८	२	६५,९०८	०.६४
९.	राष्ट्रिय जनमोर्चा	१२२	१	९३,५७८	०.९१
	जम्मा		२४०		

स्रोत : निर्वाचन आयोग, २०६५, पृ. १६-१८

नेपालको इतिहासमा पहिलोपटक सम्पन्न भएको संविधानसभा निर्वाचनका लागि निर्वाचन आयोगमा ७५ वटा राजनैतिक दल दर्ता भएका थिए तापनि ६२ वटा दलले भाग लिएका थिए । प्रत्यक्ष निर्वाचित हुने गरी २४० सिटका लागि भएको निर्वाचनमा ९ वटा दलको मात्र संविधानसभामा उपस्थिति रहेको थियो । यसपटक अघिल्लो निर्वाचनमा प्रतिनिधित्व गरेका ७ वटा दल, १० वर्ष सशस्त्र विद्रोहपछि शान्तिप्रक्रियामा आएको माओवादी र तराईमा खुलेका क्षेत्रीय दलहरूको उपस्थिति रहेको थियो । फलतः नेकपा नामका ५ र क्षेत्रीय ३ वटा दल थिए । प्रत्यक्ष निर्वाचनमा एक सिट ल्याउन नसके पनि समानुपातिक मतका आधारमा अन्य १६ वटा दलहरू संविधानसभामा उपस्थित पुगेका थिए । ६०१ जना सभासद् रहेको संविधानसभाको काम संविधान निर्माण गर्ने मूल उद्देश्य भुलेर सरकार गठन र विघटनको खेलमा समय बरबाद भयो । फलतः तोकीएको मितिमा होइन कि पटकपटक थपिएको समयमा पनि संविधान बनाउन नसकी संविधानसभाको बिघटन भयो ।

दोस्रो संविधानसभाको निर्वाचन र संविधानसभामा पुगेका दलहरू

आन्दोलनको जनादेश संविधानसभाबाट संविधान निर्माण गर्ने भन्ने थियो तर पहिलो संविधानसभाले संविधान दिन नसकी विघटन भयो । पुनः संविधानसभाको निर्वाचन गर्ने कुरामा राजनैतिक दलहरूका आआफ्नै अडान र भनाइहरु रहे । चुनावी सरकारको नेतृत्वका लागि दलहरूका बिच हानथाप चल्यो । लामोसमयको रस्साकस्सीपछि सर्वोच्च अदालतका प्रधानन्यायाधीशको नेतृत्वमा चुनावी सरकारको गठन भयो । त्यही सरकारले २०७० मङ्सिर ४ मा दोस्रोपटक संविधानसभाको निर्वाचन गऱ्यो । पहिलोपटक

भएको संविधानसभा निर्वाचनमा प्रत्यक्षतर्फ एकसिट जित्न नसकेका दलहरूले समानुपातिक प्रणालीबाट संविधानसभामा प्रतिनिधित्व गर्न पाएका थिए । त्यही खालको मौका आउन सक्ने ठानी १३२ वटा दलहरू गठन भई निर्वाचन आयोगमा दर्ता भएका थिए । एकप्रकारले भन्ने हो भने त्यतिखेर राजनैतिक दल खोल्ने होडबाजी नै चल्यो तर प्रत्यक्ष निर्वाचनतर्फ भाग लिने र संविधानसभामा पुग्ने दलहरू निम्नअनुसार रहेका थिए:

तालिका ६

संविधानसभाको दोस्रो निर्वाचनमा भाग लिएका राजनैतिक पार्टीहरूको नाम र परिणाम

क्र.सं.	राजनैतिक पार्टीहरूको नाम	विजयी सङ्ख्या	प्राप्त मत	मत प्रतिशत
१.	नेपाली कांग्रेस	१०५	२,६९४,९८३	२९.८०
२.	नेपाल कम्युनिस्ट पार्टी एमाले	९१	२,४९२,०९०	२७.५५
३.	नेपाल कम्युनिस्ट पार्टी माओवादी	२६	१,६०९,१४५	१७.७९
४.	मधेसी जनअधिकार फोरम लोकतान्त्रिक	४	२८३,४६८	३.१३
५.	तराई मधेस लोकतान्त्रिक पार्टी	४	१७१,८८९	१.९०
६.	मधेसी जनअधिकार फोरम नेपाल	२	२०६,११०	२.२८
७.	सद्भावना पार्टी	१	१४०,९३०	१.५६
८.	तराई मधेस सद्भावना पार्टी	१	६५,०४७	०.७२
९.	मजदुर किसान पार्टी	१	५४,३२३	०.६०
१०.	राष्ट्रिय प्रजातन्त्र पार्टी	३	२३८,३१३	२.६३

Source : Wikipedia.org/wiki/2013 nepalese constituent assembly election result

निर्वाचन आयोगमा १३२ वटा राजनैतिक दल दर्ता भए पनि निर्वाचमा भाग लिने १२२ दल थिए । यसरी ठुलो सङ्ख्यामा दलहरूले भाग लिनुको उदेश्य समानुपातिक मतका आधारमा संविधानसभामा पुग्नु रहेको थियो । त्यसैगरी यसअघि तीनवटा क्षेत्रीय पार्टी संविधानसभामा पुगेका भए पनि सत्तामा पुग्ने होडबाजीले विभाजित हुँदै जाँदा संविधानसभामा तिनै क्षेत्रीय दलको सङ्ख्या बढ्न पुगेको थियो । परिणामका हिसाबले पहिलो स्थानमा रहेको माओवादी तेस्रो, दोस्रो स्थानमा रहेको नेका पहिलो र तेस्रो स्थानमा रहेको एमाले दोस्रो स्थानमा पुगेका थिए । समानुपातिक मतका आधारमा अरु २० दल पनि संविधानसभा पुगेका थिए ।

२०७४ सालको आमनिर्वाचन र प्रतिनिधिसभामा पुगेका दलहरू

२०७२ असोज ३ गते संविधानसभाबाट नेपालको संविधान जारी भयो । २०६३ सालको अन्तरिम संविधानमा संविधानसभामा ६०१ सदस्य रहने व्यवस्था रहेकोमा पछिल्लो संविधानले प्रत्यक्षतर्फ १६५ र समानुपातिकतर्फ ११० सिट गरी २७५ सदस्यीय प्रतिनिधिसभाको व्यवस्था गऱ्यो (नेपालको संविधान २०७४, पृ. ४१) । संविधानमा व्यवस्था भएअनुसार २०७४ मङ्सिर १० र २१ गते दुई चरणमा आमनिर्वाचन भयो । प्रत्यक्षतर्फ १६५ सिटमध्ये पहिलो चरणमा ३२ जिल्लाका ३७ र दोस्रो चरणमा ४५ जिल्लाका १२८ सदस्यका लागि निर्वाचन भयो । निर्वाचन दुई चरणमा सम्पन्न भए तापनि मतगणना एकै पटक गरियो । पहिलो निर्वाचित हुने प्रणाली अन्तर्गत निर्वाचनमा भाग लिएका दलहरूको प्रतिनिधिसभामा निम्नअनुसार उपस्थिति रहेको थियो:

तालिका ७

प्रतिनिधिसभामा भाग लिएका राजनैतिक पार्टीहरूको नाम र परिणाम

क्र.सं	राजनैतिक दलहरूको नाम	उम्मेदवार सङ्ख्या	विजयी सङ्ख्या	प्राप्त मत	मत प्रतिशत
१.	नेपाल कम्युनिस्ट पार्टी एमाले	१०३	८०	३,०८०,२७७	३०.६८
२.	नेपाली कांगेस	१५४	२३	३,५९०,७९३	३५.४२
३.	नेपाल कम्युनिस्ट पार्टी (माओवादी केन्द्र)	५९	३६	१,५१०,७६०	१५.०३
४.	संघीय समाजवादी फोरम	१०७	१०	५२७,९२४	५.२५
५.	राष्ट्रिय जनता पार्टी नेपाल	६५	११	४५८,४०९	४.५६
६.	राष्ट्रिय प्रजातन्त्र पार्टी	६	१	११८,३१८	१.१७
७.	राष्ट्रिय जनमोर्चा	८९	१	७०,७१४	०.७०
८.	नयाँ जनशक्ति पार्टी	१२३	१	८४,०३७	०.८३
९.	नेपाल मजदुर किसान पार्टी	६०	१	५२,६६८	०.५२

Source: www.election.gov.np election result book

यसअघि सम्पन्न भएका दुईवटा संविधानसभाको निर्वाचनमा प्रत्यक्षतर्फ एक सिट नजित्दा पनि समानुपातिक मतका आधारमा दलहरू संविधानसभामा पुगेका थिए । त्यसैको प्रभाव स्वरूप निर्वाचन आयोगमा ९५ वटा दल दर्ता भए पनि निर्वाचनमा ५५ वटा दलले मात्र भाग लिएका थिए । नयाँ बनेको

संविधानमा पनि प्रत्यक्ष र समानुपातिक गरी दवै प्रणालीको व्यवस्था रहेको थियो तर विगतको जस्तो खुकुलो थिएन । समानुपातिक प्रणालीतर्फ कम्तीमा ३ प्रतिशत मत र पहिलो निर्वाचित हुने निर्वाचन प्रणालीतर्फ एक सिट प्राप्त गर्नु पर्दथ्यो । प्रत्यक्ष निर्वाचनतर्फ अघिल्ला निर्वाचनमा जुनजुन दल विजयी भएका थिए यसपटक पनि तिनै दलको बाहुल्य रहेको थियो । नयाँ जनशक्ति पार्टी पहिलोपटक प्रतिनिधिसभामा पुगेको थियो । राष्ट्रिय पार्टी बन्न समानुपातिकतर्फ ३ प्रतिशत र प्रत्यक्षतर्फ कम्तीमा १ सिट ल्याउनु पर्ने हुन्थ्यो। फलतः प्रतिनिधिभामा पुगेका ९ मध्ये ५ वटा दलले भनेअनुसारको परिणाम ल्याएका भए पनि अरूले ल्याउन सकेन् । त्यसैले ५ वटा दलले मात्र राष्ट्रिय पार्टीको मान्यता पाएका छन् ।

निष्कर्ष

राणाशासन नेपाली जनताका लागि अन्धकारको युग थियो । २००७ सालको आन्दोलनले राणाशासनको अन्त्य गर्दै प्रजातन्त्रको स्थापना गऱ्यो । प्रजातन्त्रमा आफ्नो मत राख्न पाउने भएको हुँदा शासनमा जनताको पनि सहभागिता हुनु स्वाभाविक थियो । यद्यपि आन्दोलनको स्प्रिटअनुसार आन्दोलनकारी शक्ति चल्न नसक्दा प्रजातन्त्र स्थापना भएपछिका ८ वर्ष अन्योल र अस्थिरतामा बिते । २०१५ सालमा भएको आमनिर्वाचनपछि बनेको सरकार पनि करिब अढाई वर्षपछि नै अपदस्त भयो । २०१७ सालपछि करिब २ दशक सम्म राजनैतिक दलहरू प्रतिबन्धित अवस्थामा नै रहे । पञ्चायती व्यवस्थामा दलहरूको अस्तित्व स्वीकार नगरिएको हुँदा निर्वाचनसँग दलहरू जोडिएनन् । २०४६ सालमा बहुदलीय व्यवस्थाको पुनःस्थापनापछि राजनैतिक दलहरू राज्यसञ्चालनका प्रमुख शक्ति बनेका थिए । २०१५ देखि २०७४ सालसम्म आइपुग्दा राजनैतिक दलहरू सहभागी भएका ७ वटा निर्वाचन भए । ती सबै निर्वाचनमा जनताको विश्वास जित्ने दलहरू प्रतिनिधिसभा/संविधानसभामा उपस्थित हुनेमात्र होइन, तिनले राज्य सञ्चालन गर्ने अवसरसमेत पाए । बहुमत पाएका दल सत्तामा पुगेर जनताप्रति जवाफदेही हुन नसक्दा त्यसको विकल्पमा जनताले नयाँ दललाई मौका दिएको पाइन्छ । प्रतिनिधिसभा होस् वा संविधानसभा, त्यहाँ दलहरूको उपस्थिति जनताको विश्वास र दलहरूको जवाफदेहिताले निर्धारण गरेको परिणाम हो भन्ने निष्कर्षमा पुग्न सकिन्छ ।

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