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RESEARCH TO SUPPORT THE FUTURE DEVELOPMENT OF A TAGGING SYSTEM FOR JUST TRANSITION FINANCIAL FLOWS

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CONTENTS

ABBREVIATIONS

DAC Development Assistance Committee (OECD)

DBSA Development Bank of Southern Africa

GHG Greenhouse Gas

ICMA International Capital Market Association

ILO International Labour Organization

JSE Johannesburg Stock Exchange.

ODA Official Development Assistance

PCC Presidential Climate Commission

RMS Rio Marker System

WBA World Benchmarking Alliance

INTRODUCTION

South Africa, like many other nations, is committed to decarbonising its economy. The intensity of South Africa's carbon use along with existing levels of unemployment, inequality and poverty will mean hardship for those communities, workers and companies that derive income or livelihoods from activities which are fossil fuel based or aligned. The indications are that the shift away from fossil fuels will take place systematically over the next two to two-and-half decades, and the impacts will be felt throughout the value chain – from coal mining, energy production, chemicals, input materials, process and products that rely on fossil fuels, to a host of direct and auxiliary services. The employment in the formal part of this value chain mainly provides decent jobs. These incomes in turn create economic opportunities including in both the formal and informal sectors.

The transition out of fossil fuels will impact all citizens and all parts of the economy but will have a particularly negative impact on the most vulnerable in society who have the least ability to adapt to change. The just transition concerns itself with such workers and communities and considers what alternative employment opportunities and livelihoods may look like and how they can be achieved. The aim of the just transition is to not leave anyone behind in the move to net zero.

Using an economic lens, a just transition should result in a structural shift in place-based economic activity with new, diversified, non-brown, sustainable services and industries replacing fossil fuel-based activities. These new activities will require new skills and capabilities. New activities may also not be established in the same geographic location as where decarbonising jobs are lost. Service access is also potentially threatened as large heavy emitters that are closing down may cease to provide community services which they had been providing in lieu of, or in collaboration with, local municipalities. As such there is a real risk that workers and communities with limited ability to adapt to decarbonisation-driven change may be left worse off by the transition.

Using a justice lens, the Presidential Climate Commission's 2022 Framework for a Just Transition in South Africa considers the issue in terms of distributive, restorative and procedural justice. Procedural justice seeks to ensure that impacted workers and communities have a meaningful voice in their futures. Distributive justice seeks to ensure an equitable distribution of risks and responsibilities which address the direct impacts of the transition process. Restorative justice seeks to redress historical damages against individuals, communities and the environment. In the Framework these three principles are each associated with a theory of change which, if achieved, would support the country's vision of "a good life for all South Africans, in the context of climate resilient and zero emissions development" (PCC, 2022a).

In South Africa at present multiple projects, programmes, measures, initiatives and investments have been developed and proposed to support a just transition for affected workers and communities. There are also substantial pledges and future commitments to finance such activities both in the country and from abroad. With projects being developed and financing being offered (and sought), the question of what will qualify as a just transition transaction is becoming pressing.

Identifying, codifying and tagging just transition activities and associated financial flows is a global challenge, which has often been characterised as a wicked problem (Zadek, 2018) because of its complexity. There are layers of complications. They include: the broad array of standalone and embedded, projects and activities being advanced and implemented; the breadth and depth of project, programme and activity originators (spanning all stakeholders in the economy); the wide array of sources of funding, disparate anticipated investment return profiles; different levels of activity sustainability; as well as highly divergent understandings of what a just transition entails and how it should be measured. The three decade long chronology of climate finance identification, codification, tagging and the development of a green taxonomy (which remains contested and muddled in the eyes of some) provides sombre thought for the enormity of the task of making progress on something as normative as a just transition transaction.

The purpose of this paper is to consider how the multiple projects, programmes, measures, initiatives and investments that have been proposed to support a just transition for affected workers and communities in South Africa can be used to inform i) thinking about appropriate context specific codification and tagging; and ii) estimating just transition financial flows. This suggested evidence-based approach supports a learning by doing theory of change and would support bottom-up, on-the -ground evidence to be added to top-down theoretical and analytical approaches to tagging and measurement.

The paper is an initial contribution to what will inevitably be a long-term, iterative ongoing project. The urgency to take preliminary steps is driven by the need to collect evidence to: shape the ongoing research agenda related to just transition finance mobilisation and deployment; assist policymakers to make better and more informed decisions on possible legislative and regulatory interventions, subsidies and incentives to support a just transition; and, most importantly, the identification of just transition financing gaps and opportunities.

The paper is strongly influenced by the process and thinking of the 1998 Rio Marker System (RMS) which sought to deal with how to quantify mitigation and adaptation funding from overseas development assistance in the very early years before accepted definitions and measurement of mitigation, adaptation and climate finance were widely agreed on. The marker system applied to South African projects could be one possible way that future researchers could advance the discourse on identifying just transition activities and their associated financial flows.

Section 1 introduces current thinking about how to measure just transition activities. It reviews the vanguard work of the World Benchmarking Alliance (WBA), Climate Action 100+, the International Capital Market Association (ICMA) and the 2022 Johannesburg Stock Exchange Sustainability and Climate Disclosure Guidance (JSE, 2022). The section shows tentative and high-level initial thinking reflective of the nascence of the agenda in corporate thinking.

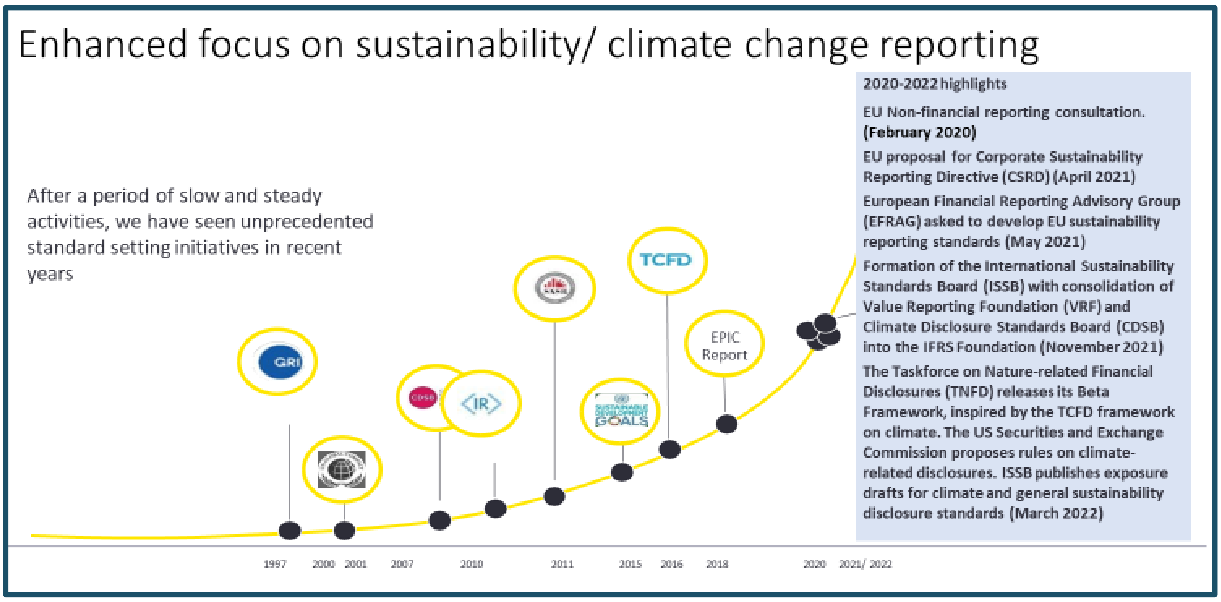
In Section 2 the Rio Marker system is explained. This covers how parameters and guidance on qualifying activities was first approached as well as how qualitative narrative descriptions were used to quantify associated financial flows. In Section 3, a review of self-identified just transition activities in South Africa is introduced based on research from the 2021 Just Transition Finance Roadmap. The review shows an array of: different project design features (standalone just transition projects versus predominantly decarbonisation driven projects with some added on just transition activities); different levels of ambition related to just transition outcomes (narrow versus broad view of beneficiaries and social indicators to be impacted); and different financing challenges facing different just transition activities.

Section 4 pulls these three sections together and suggests a possible way forward for future research in the field in South Africa. The approach explored would be to collect qualitative (and where possible quantitative) evidence of the existing activities comprising projects, programmes, measures and interventions which aim to support a just transition, and to use this evidence to inform a framework of qualifying just transition themes and actions. In time, iterations of these themes and actions will support more granular definitions, thresholds and metrics of qualifying just transition activity. If such a framework were constructed, an allied project purpose-driven funding allocation approach could be experimented with to provide indicative values for just transition financial flows.

1. CURRENT RESEARCH ON JUST TRANSITION MEASUREMENT

Work to date on how to measure just transition activity has largely been led by the private sector and research community rather than national governments. The work is being tied into the rapid progress being made in relation to sustainability and climate change reporting (Diagram 1). Reporting progress in these areas has accelerated with the acceptance of double materiality[1] and new climate-related products being created in the market (for example green and sustainability bonds). The green taxonomy has also substantially contributed to clarity and progress; and work on reporting standards has increased exponentially since 2020.

Diagram 1: Activity in sustainability reporting globally



Source: McNulty, 2022.

Work on measurement and reporting specifically on the just transition, however, lags. In a scan of existing reporting material, *explicit* consideration of frameworks which seek to measure just transition activity were found to be limited and included: the WBA, Climate Action 100+, ICMA and the JSE. In all these examples nascent first steps to include just transition reporting must be applauded, but the very high level and low initial expectations of such benchmarks speaks to the complexity of the work at hand and the progress which still needs to be made.

All the surveyed approaches explicitly account for a just transition reporting component as part of larger existing frameworks which cover sustainability and climate activity more broadly. The brief synopsis of just transition disclosures and measures presented below is thus best appreciated and understood within a broader reading of such complete frameworks.[2]

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[1] Double materiality extends the concept of important company information so that it includes social and environmental as well as financial impact.

[2] Climate Action 100+ - Net Zero Company Benchmark: https://www.climateaction100.org/net-zero-company-benchmark/
World Benchmarking Alliance: https://www.worldbenchmarkingalliance.org/just-transition/
International Capital Market Association – Climate Transition Finance Handbook: https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/climate-transition-finance-handbook/
Johannesburg Stock Exchange – Sustainability and Climate Disclosure Guidance: https://www.jse.co.za/our-business/sustainability/jses-sustainability-and-climate-disclosure-guidance

Common to all the approaches to measure just transition activities is their foundation in the 2015 Paris Agreement and the International Labour Organization's 2015 report on guidelines for a just transition (ILO, 2015). As is well known, these two base documents essentially call for stakeholders to take into account the imperatives of a just transition on the workforce and impacted communities, and the creation of decent work and quality jobs in accordance with nationally defined development priorities, as part of their climate actions and anchoring any plans in respect for human rights.

Climate Action 100+ is an investor-led initiative to ensure that the world's largest corporate greenhouse gas emitters take necessary action on climate change. Climate Action 100+ collects data from these firms on 10 key indicators in its Net Zero Company Benchmark Disclosure Framework. Disclosure Indicator 9 Just Transition was added as a Beta testing indicator in 2020 (Diagram 2).

Diagram 2: Climate Action 100+ Just Transition Indicator

Disclosure Indicator 9 – Just Transition [Beta][8]

In the Preamble to the Paris Agreement on Climate Change, signatory countries agree that their actions on climate change need to account for the imperatives of a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities.

Sub-indicator 9.1
Acknowledgement

Metric a): The company has made a formal statement recognising the social impacts of their climate change strategy—the Just Transition—as a relevant issue for its business.
Metric b): The company has explicitly referenced the Paris Agreement on Climate Change and/or the International Labour Organisation's (ILO's) Just Transition Guidelines).

Sub-indicator 9.2
Commitment

The company has committed to Just Transition principles:
Metric a): The company has published a policy committing it to decarbonise in line with Just Transition principles.
Metric b): The company has committed to retain, retrain, redeploy and/or compensate workers affected by decarbonisation.

Sub-indicator 9.3
Engagement

The company engages with its stakeholders on Just Transition:
Metric a): The company, in partnership with its workers, unions, communities and suppliers has developed a Just Transition Plan.

Sub-indicator 9.4
Action

The company implements its decarbonisation strategy in line with Just Transition principles.
Metric a): The company supports low-carbon initiatives (e.g. regeneration, access to clean and affordable energy, site repurposing) in regions affected by decarbonisation.
Metric b): The company ensures that its decarbonisation efforts and new projects are developed in consultation and seek the consent of affected communities.
Metric c): The company takes action to support financially vulnerable customers that are adversely affected by the company's decarbonisation strategy.

Source: Climate Action 100+, 2022

The Climate Action 100+ benchmark requires that companies must demonstrate that they are planning to proactively protect long-term value and mitigate severe disruption to the economy while ensuring that workers and communities are given fair opportunity to transition to new and sustainable livelihoods.

The benchmark evaluates whether a company *acknowledges* the social impacts of its climate change strategy, which is measured by the issuing of a formal statement by the company. The benchmark then seeks to measure the company's *commitment* to just transition principles both by seeking an explicit reference to the Paris Agreement and/or the ILO just transition guidelines; and in terms of a metric to measure commitments to retrain, retain, redeploy and/or compensate workers affected by decarbonisation. As will be shown, the JSE disclosure guidance takes the Climate Action 100+ commitment to retrain, redeploy and/or compensate workers a step further and measures actual performance against these measures rather than just commitments.

The third element the Climate Action 100+ benchmark seeks to address is the issue of whether a company has *engaged* with its stakeholders on the just transition. This is measured by the co-creation of a Just Transition Plan by the company, workers, unions, communities and suppliers. In this case the Climate Action 100+ threshold is higher than that for example in the JSE guidance where the number of stakeholder engagements is suggested as an appropriate measure without any reference to what is accomplished or achieved by such engagement.

Finally the benchmark measures *action* taken. This covers actions which ensure that the company implements its decarbonisation strategy in line with just transition principles. This is measured by three metrics for the company to support: i) low carbon initiatives; ii) new projects developed and implemented with the consent of the regions communities; and iii) actions to financially support vulnerable customers.[3]

The Climate Action 100+ just transition addition to its net zero benchmark indicators speaks to where real economy corporates are in understanding and acting on commitment to a just transition. It would be more useful to be able to benchmark and measure just transition activity outcomes and impacts on effected workers and communities, but the addition of the concept to the just transition discourse remains nascent. At present, benchmarking is characterised by acknowledgement, commitment and engagement rather than achieved impacts. This captures the reality that private sector corporates are in the early stages in their processes of coming to terms with understanding what the just transition concept means to them and their climate action planning and activities. As such, disclosures that provide insight into acknowledgement, commitment and engagement with a just transition appropriately reflect the nascence of the just transition agenda even if they feel insufficiently ambitious.

For the WBA a just transition envisions resilient and thriving workers and communities carrying out green and decent jobs while limiting global temperature increase to 1.5 degrees Celsius in line with the Paris Agreement. In its 2021 Just Transition Approach Report the WBA identifies “proposed just transition topics” and the “indicative scope of just transition indicators to be developed” (WBA, 2021a). As will be shown, these can be used to inform the creation of a future framework as a starting point against which to consider actual project activity evidence, so as to inform a context-specific, evidence-driven framework for South African just transition activity.

The WBA identifies six just transition topics: just transition planning; social dialogue and stakeholder engagement; green and decent job creation (including inclusive and gender balanced workforce); retaining and retraining/reskilling workers; social protection; and advocacy for policies and regulations supporting a just transition. For each topic it identifies existing WBA core social indicators which could be used for measurement, as well as a list of additional scope dimensions which could be included, and where direction on such scope could be sourced (Diagram 3).

[3] The Beta test was rolled out in the oil and gas sector.

Diagram 3: WBA Just Transition topics and potential indicators

Proposed just transition topics (revised back on stakeholder feedback)	Existing WBA core social indicators/ACT methodology indicators	Indicative scope of just transition indicators to be developed
Company respects and promotes workers' and human rights and plans for a just transition for workers and communities	**Core Social:** **CSI 1** Commitment to respect human rights **CSI 2** Commitment to respect the human rights of workers **ACT methodologies:** Automotive Manufacturing sector methodology, indicator 5.3, Electric Utilities sector methodology indicator 4.3, Oil and Gas sector methodology indicator 5.3 – Low-carbon transition plan	The company plans for how to ensure that the low-carbon/net-zero transition will be just and equitable for workers and their communities (adapted from Climate Action 100+ Net-Zero Benchmark, LSE, UNFCCC).
Social dialogue and stakeholder engagement	**Core Social:** **CSI 6** Engagement with affected and potentially affected stakeholders **CSI 12** Collective bargaining fundamentals	The company engages in social dialogue with workers and their trade unions to plan for the just transition. (ILO, B Team & Just Transition Centre). Tripartite dialogue between unions, the company and relevant government bodies is also strongly re-commended. (B Team & Just Transition Centre, SEI, UNFCCC, IHRB, OHCHR). The company engages with other stakeholders about the just transition. (BSR, LSE).
Green and decent job creation, including inclusive and gender balanced workforce	**Core Social:** **CSI 19** Health and safety fundamentals **CSI 10** Living wage fundamentals **CSI 11** Working hours fundamentals **CSI 12** Collective bargaining fundamentals	The company has a commitment to/plans to create green and decent jobs (B Team & Just Transition Centre, LSE, UNFCCC). This includes a commitment to ensuring gender balance and inclusion of vulnerable groups (BSR, ILO, OHCHR).
Retain and retrain/reskill workers, including inclusive and gender-balanced workforce	**Core Social:** **CSI 13** Workforce diversity disclosure fundamentals **CSI 14** Gender equality and women's empowerment fundamentals	The company has a commitment to/plans to reskill workers displaced by the transition to a low-carbon economy (LSE, UNFCCC). This includes a commitment to ensuring gender balance and inclusion of vulnerable groups. (B Team, OHCHR).
Social protection	**Core Social:** **CSI 10** Living wage fundamentals **CSI 16** Responsible tax fundamentals	The company includes its contribution to social protection (e.g. healthcare benefits and retirement security) in its just transition plan. (B Team & Just Transition Centre, LSE, IHRB) The company works with governments to ensure provision of appropriate income support, pensions and unemployment benefits. (Adapted from BSR).
Advocacy for policies and regulation supporting a just transition	**Core Social:** **CSI 18** Responsible lobbying and political engagement fundamentals **ACT methodologies:** Automotive Manufacturing 9.1; Electric Utilities 5.1; Oil and Gas 9.1 – Company policy on engagement with trade associations Automotive Manufacturing 9.2; Electric Utilities 5.2; Oil and Gas 9.2 – Trade associations supported do not have climate-negative activities or position Automotive Manufacturing 9.3; Electric Utilities 5.3; Oil and Gas 9.3 – Position on significant climate policies	The company advocates for policies that enable the generation of high-quality low-carbon jobs and for those displaced to shift to new livelihoods (BSR, LSE).

Source: Just Transition Methodology, WBA, 2021b.

The WBA work is less developed than that of Climate Action 100+ but covers many of the same elements, most notably the requirement to have a plan for a just transition, the need for stakeholder engagement, and the need for retention, retraining and reskilling measurement disclosures. An inclusion (with some emphasis) in the WBA approach not found in the Climate Action 100+ approach (but included in the JSE guidance) is an emphasis for private companies to play a lobbying and advocacy role in relation to government and trade associations. Understanding that delivering a just transition will be a multi-stakeholder effort involving the public sector, private sector and civil society the proposed indicators specifically suggest that the private sector work with government to ensure appropriate public sector interventions to create an enabling environment for private sector just transition activities as well as public sector income support measures. As with the Climate Action 100+, ICMA and JSE indicators the WBA indicators are additive to an extensive set of existing social indicators relating to sustainability and climate action.

The ICMA provides only a passing, but (nevertheless) explicit, mention of just transition disclosure in its 2020 Climate Transition Finance Handbook guidance for issuers. The handbook seeks to provide clear guidance and common expectations to capital market participants on the practices, actions and disclosures to be made available when raising funds for climate transition related purposes. There are four key disclosure recommendations falling under the headings of issuers: strategy and governance; business model environmental materiality; climate transition strategy; and implementation transparency.

Under implementation transparency, the ICMA suggests that a company disclose planned capital and operational expenditure decisions which will deliver its proposed transition strategy. It suggests that such expenditure be broken down to not only include expenditure on "greening by"' or "greening of" considerations but to also include just transition considerations. It states that "where a transition may have negative impacts on workers and communities, issuers should outline how they have incorporated considerations of a just transition into their climate transition strategy" (ICMA 2020). As expected, due to the nature of the Association, the ICMA-suggested disclosure relates to actual expenditure set aside for just transition implementation. This is a far higher ask of companies than the WBA and Climate Action 100+ disclosure suggestions, which are more focused on acceptance and thinking and planning for a just transition rather than actual implementation and money on the table. In the absence of more work on what a just transition entails and how it is measured, it is unlikely that issuers will have clarity on exactly what just transition considerations (and hence expenditure) needs to be counted and disclosed.

South Africa is in the vanguard of thinking about a just transition, just transition finance and just transition disclosure. In 2022 the Johannesburg Stock Exchange published its Sustainability and Climate Disclosure Guidance. It is an enormously comprehensive guidance based on a review of all peer literature globally (and obviously learning from the examples cited above). The guidance suggests that firms disclose using narratives of a company's governance, management, strategy and metrics, targets, and performance related to sustainability. It then looks at metrics divided into the categories of: environmental metrics, social metrics and governance metrics.

Within each category are core metrics (which are standardised and will apply to almost all companies) and leadership metrics (where the metric may be particular to the company/sector and/or its sustainability activities). Leadership and core metrics are then listed in detail with a definition, unit of measurement, other international framework references, and rationale presented.

Under the category of environmental disclosure metrics the JSE guidance lists sub categories which include: climate change, water security, biodiversity and land use, pollution and waste and supply chain and materials. Breaking these down further the climate change category is broken down into: greenhouse gas (GHG) emissions, energy mix, science-based targets and just transition (Diagram 4). As such just trasntion disclosure in the JSE guidance is dealt with explicitly at the level of environmental disclosures related to climate change although many of the aspects of a just trasntion are infact dealt with under its social metrics. This JSE example brings into stark relief the point made earlier that explicit just transition indicators currently being advocated must be read within broader articulations of climate change and sustainability indicators. The parameters of explicit just trasnition disclosure metrics is thus very fuzzy and creates layers of complexity in any proposed codification and tagging system.

Diagram 4: JSE Environmental Disclosure Metrics

E1.4 Just Transiti on E1.4a	C	Existence and nature of a just transition plan that commits to stakeholder engagement with affected workers and communities (see the JSE Climate Disclosure Guidance for further detail)	TCFD consultation WBA GRI11 (oil and gas supplement)	The Paris Agreement incorporated the notion of a just transition which originated in the labour movement to signal the importance of minimising the negative impacts and maximising the positive opportunities for communities and workers as part of the shifts towards a low emissions economy. Given the importance of the just transition it will be critical to pay increasing attention to the related risks and opportunities and ensure that social considerations are also addressed in decarbonisation and energy transition plans
E1.4b	C	Number of workers in the last year recruited, retrained, retrenched and/or compensated due to implementation of the decarbonisation plan		
E1.4c	L	Number of engagements undertaken with affected parties by group and geography		
E1.4d	L	Nature of climate related lobbying activities and those of relevant associations and membership groups, and their alignment with the objectives of the Paris Agreement and Glasgow Climate Pact		

Source: Sustainability and Climate Disclosure Guidance, JSE, 2022.

The Just Transition understanding used by the JSE is based on the Paris Agreement's notion of a just transition. As with all the above attempts at measuring just transition activity, the first core metric in the guidance is disclosure of the existence of a transition plan that commits the company to engage with affected workers and communities. In this way the guidance goes some way to incorporating the Presidential Climate Commission (PCC) principle of procedural justice and the need for inclusivity. As with the other international measures, it does not detail plan implementation or the quality of engagements and planning around the wishes of communities and workers. It does, however, include a leadership metric measuring how many engagements occur.

A second core metric is for the company to disclose the number of workers recruited, retrained, retrenched and/or compensated due to the implementation of the company's decarbonisation plan. The metric for this is the number of workers. This is a very specific metric, the quantification of which is well understood and easy to measure. This measure in found in both the WBA and the Climate Action 100+ frameworks. It must be noted that in all the approaches (including the JSE approach) the quality of jobs in the company are dealt with through labour standard metrics under the broader heading of social metrics. These usually cover jobs that pay at least the minimum wage, meet health and safety regulations, allow collective bargaining and protect human rights including working hours. As such these jobs are read as decent jobs as per the laws of the land.

Two leadership metrics in the JSE guidance also suggest just transition disclosure. These leadership metrics allow for differing levels of applicability and timing based on sector and other issues which may impact the materiality of the disclosure. The first leadership metric relates to the nature of climate-related lobbying activities undertaken by the firm. In this metric the JSE mirrors the work of the WBA and Climate Action 100+ which both see private sector lobbying and advocacy as a necessary component to achieving a just transition to net zero. Again the metric (in all examples) is activity based not impact based, reflecting the nascence of the concept and its measurement.

The second leadership metric is the number of engagements undertaken with affected parties (communities and workers) measured by group and geography. This is a potentially hazardous metric as it could make engagements as envisaged in the just transition plan a tick box exercise, measured by meetings which have limited tangible outcomes and impacts in line with the preferences expressed by workers and communities. It is, however, a first step in what will be a journey of increased granularity, specificity and hopefully implemented activities which result in meaningful impacts.

The sample of explicit possible just transition measurements, metrics and disclosure advice is small. As shown above, qualification and measurement options remain both nascent and high level. Specificity, granularity, thresholds and eventually impacts will all need to be added as just transition activity and associated financial flows become more prevalent and better understood and developed. The early adoption of the just transition topic as an additive and unique category requiring definition, measurement, tagging and tracking over and above more mainstreamed sustainability measures is, however, a positive step in the right direction and a building block for future thinking.

2. THE RIO MARKER SYSTEM

The challenge of identifying what a just transition activity or transaction is and what parameters should be measured and how is not a unique challenge. In the very earliest days of a global response to climate action and the responsibility of the global north to assist less developed countries to adopt climate friendly development paths similar questions were asked about what would qualify as a mitigation, adaptation, desertification or bio-diversity activity and how monies associated directly and indirectly with these activities would be counted as (what would become) climate finance. Researchers grappling with issues of identifying, tagging and tracking just transition transactions can thus learn from the methodological experience and lessons from the early days of thinking about climate action and climate finance.

In reviewing the chronology of climate finance articulation and measurement, the early work of the Rio Marker System stands out as a possible case study from which South African researchers could learn in making early progress on identifying, tagging and tracking just transition activities and their associated financial flows. The approach is evidence-based and allows learning by doing.

In 1992 the United Nations Conference on Environment and Development (known as the Earth Summit) was held in Rio de Janeiro, Brazil, attended by 179 countries. The summit was revolutionary in formally endorsing the idea of sustainable development and highlighting how different social, economic and environmental factors are interdependent and evolve together. The primary objective of the Rio Earth Summit was to produce a broad agenda and a new blueprint for international action on environmental and development issues.

The Earth Summit was enormously successful. Some of its major results included the adoption of Agenda 21, the Rio Declaration and its 27 principles, the United Nations Convention on Climate Change, and three key Conventions on: Biodiversity, Desertification and Climate Change Mitigation (adaptation was added later). Importantly, the Rio Earth Summit also pioneered the thinking that developed nations had a role to play in aiding developing nations to develop in a sustainable manner. Initially this would be achieved through direct aid known as "official development assistance" (ODA).

Official development assistance is government aid that promotes and specifically targets the economic development and welfare of developing countries. ODA data is collected, verified and made publically available by the Development Assistance Committee (DAC) of the OECD. Post the Earth Summit there was a need to measure how much ODA money was actually flowing to the three conventions (biodiversity, desertification and climate change mitigation) agreed at Rio in order to gauge commitment and progress. The DAC needed to track these flows even though there was no agreement on formal definitions, qualifying activities, specific outcomes and impact measures or metrics in place. The DAC sat with exactly the same problem currently faced by parties interested in understanding what just transition activities are being undertaken and what funding is supporting them.

In 1998 the DAC launched the Rio Marker System to officially monitor and statistically report on the development finance flows targeting the "themes of the Rio Conventions" (OECD, 2018). The RMS was a procedure whereby governments could account for the amount of funding they allocated to these themes. The themes were: bio diversity, desertification, climate change mitigation and climate change adaptation.[4] For each theme the DAC provided: i) a working definition, ii) criteria for eligibility, and iii) examples of typical activities).

The RMS was highly pragmatic, knowing that it was too early to be able to track official flows allocated to the Rio themes in terms of outcomes and impacts. It set the more modest goal of wanting to measure the extent to which the themes of biodiversity, desertification, climate change mitigation and adaptation were "being mainstreamed into official development assistance" (OECD, 2018). To do it established a system to record *the objective of a given project* i.e. is the project design and ambition driven by one of the four identified themes. The RMS was thus a *purpose-based approach* not an outcome or impact-based approach (this would unfold later over the next three decades and in still evolving today).

The DAC realised that some ODA projects might be entirely designed around or driven by one (or more) of the themes while other projects could have a totally different objective but include a small project element related to some of the themes. Given the nascence of the sustainable development agenda the DAC wanted to capture all funds flowing to the four themes even if theme-related activities were only a part of a larger project. This would provide a more complete indication of the degree of mainstreaming of environmental considerations into development co-operation portfolios.

The RMS is a purpose-based methodology. The markers identify activities contributing to meeting the objectives of the Rio Conventions. Each theme is a marker which is defined and eligibility criteria specified. Projects are marked according to their stated objective and purpose. Projects are not marked according to their outcomes and impacts.

The methodology allows for targeting multiple objectives and overlaps in the markers due to the intertwined and interconnectedness of the themes and hence the markers.

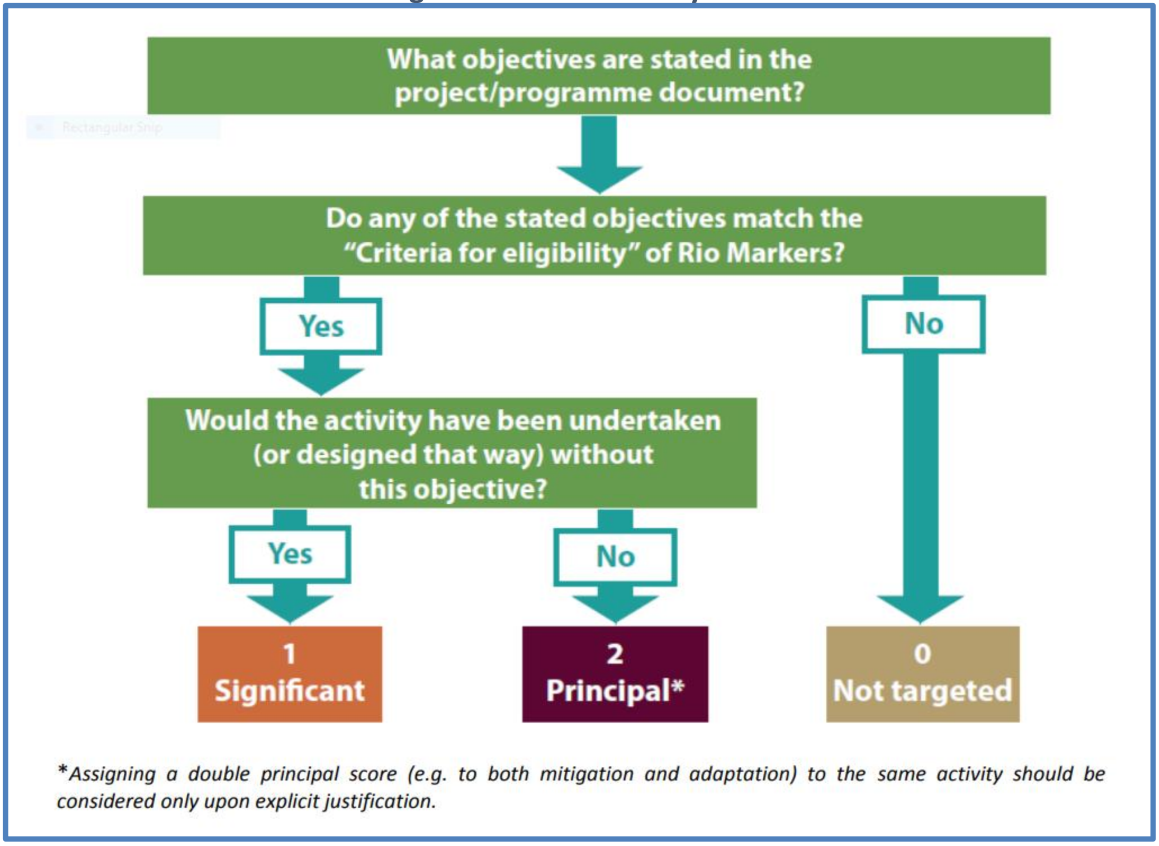
The methodology uses qualitative techniques based on descriptions of the project in terms of: context and problem analysis, objectives; and results and activities. These qualitative techniques

[4] In 1998 there were three themes: climate change mitigation, desertification and biodiversity. Climate change adaptation was added in 2010.

support an approximation of quantification of development finance flows that target Rio convention objectives through the use of a simple scoring system (Diagram 5).

The scoring system looks at whether the markers are a principal objective, a significant objective or not an objective of the project. The importance of the marker in the objective of the project is assigned a value from 0 to 2. The final value of a project is linked to a predetermined fixed percentage of the overall project budget which is then counted as an ODA flow to support the Rio Conventions.

Diagram 5: Rio Marker System



Source: Rio Marker Handbook, OECD 2018.

A *principal* objective is defined as a project in which one (or more) of the markers are explicitly stated as fundamental in the design or motivation for the action. It is the principal reason for undertaking the action and the activity would not have been funded but for that objective (OECD 2018). A principal objective is attributed a value of 2. A project with a final score of 2 will have 100% of its budget included in the measurement of ODA which supports the Rio Conventions.

A *significant* objective is defined as a project in which one (or more) of the markers are explicitly stated but do not need to be the fundamental driver or motivation for undertaking and designing the activity. In this case the activity has other prime objectives but has been formulated or adjusted to help meet the relevant environmental concern. A project which has one of the markers as a significant objective is attributed a value of 1. A project with a final score of 1 will have 40% of its budget included in the measurement of ODA which supports the Rio Conventions.

If the markers are not targeted the project scores a 0 and 0% of its budget is included.

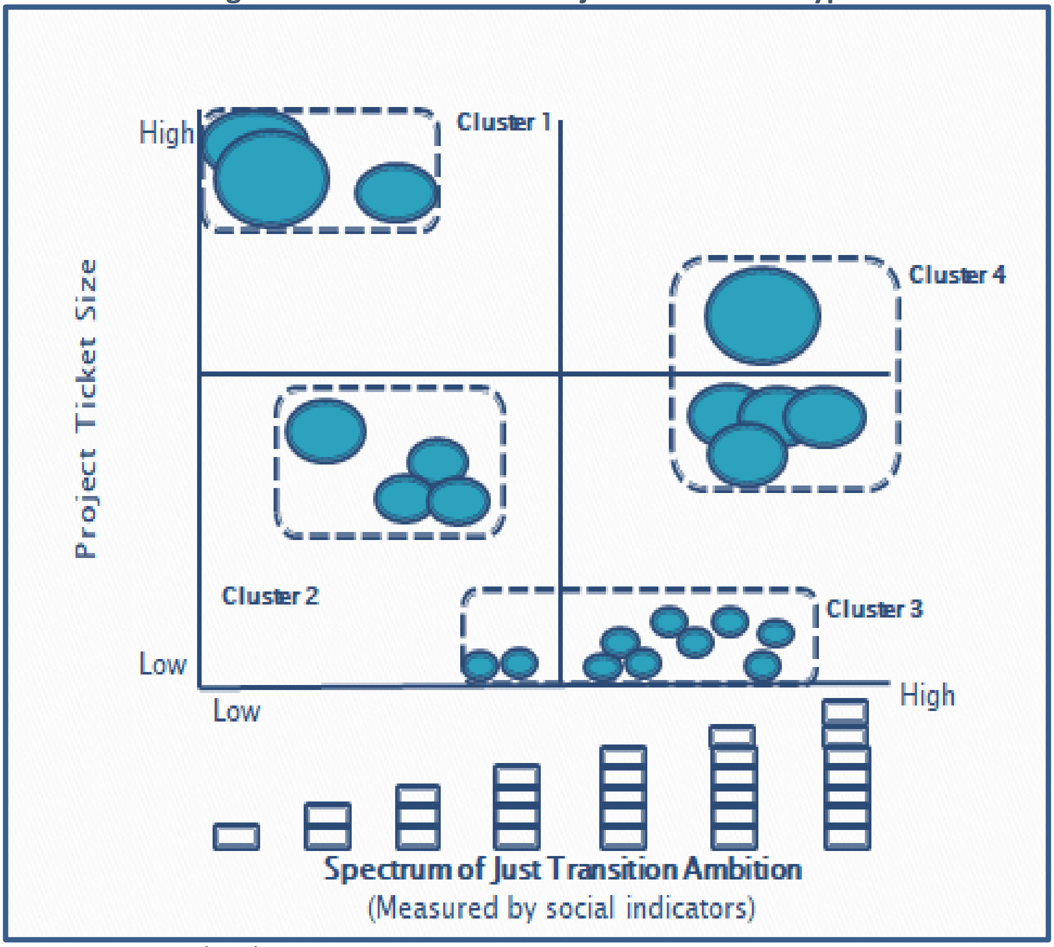
A project can target multiple objectives and qualify for more than one marker. For example a sustainable forestry management project can contribute to biodiversity and simultaneously capture carbon (climate change mitigation). The marker system does not, however, allow for scores across themes to BE added together as this would result in double or triple counting

The participants designing and delivering the above projects do not calculate the score for their own project. They submit the necessary documentation and, based on that information, the DAC assigns scores and calculates qualifying flows.

3. APPLICATION TO THE JUST TRANSITION IN SOUTH AFRICA

Research on self-identified just transition projects in Mpumalanga (Lowitt and Mokoena, 2021) identified 26 projects. These covered stand-alone just transition projects; large decarbonisation projects which contained an added just transition component; and projects which were hybrids of the two. Some projects were narrowly focused on beneficiaries and limited activities to directly impacting workers. Other projects adopted a broader view of transition effects and accounted for worker and broader community impacts. Variation was also identified for different levels of just transition ambition across projects. Some sample projects were limited to retraining and reskilling of impacted workers; while other projects sought multiple just transition impacts covering: new community asset ownership; expanded access to services; new community livelihoods; new job creation for impacted workers; and restoration of the natural environment. This diversity of intention, purpose, ambition and characteristics impacts on finance demand and supply, and sketches the complexity of understanding just transition activity in the present South African context.

Diagram 6: Just Transition Project Drivers and Types



Source: Lowitt and Mokoena, 2021

In the projects identified by Lowitt and Mokoena (2021) those in Clusters 1 and 2 are predominantly climate action driven and seek GHG emission reduction or new green industry market share as their primary and most important outcome. The principal objective of such projects (using the language of the RMS described above) is therefore decarbonisation. Most of the projects in both clusters do not plan explicit activities related to a just transition. One project in cluster 1, however, includes a substantial plan for projects parallel to the decarbonisation project to be implemented, which deal with issues of impacted workers and communities members. The parallel projects have an explicit objective to deliver a just transition. This inclusion of parallel projects would, using RMS language, amount to a significant objective of the overall decarbonisation driven project.

One of the complexities in identifying project purpose in the context of decarbonisation and a just transition in the issue of timing. Many current decarbonisation projects, which do not explicitly cater for impacts on workers and communities, argue that by virtue of the new decarbonising investment new greener activities new job opportunities, new value chain activities and new growth opportunities will materialise which will deliver many of the outcomes sought by the just transition. As such, many project promoters felt that even though their projects did not include explicit just transition activities, they felt the projects did contribute to the country's just transition goals.

In the Just Transition Finance Roadmap (Lowitt and Mokoena, 2021) decarbonising investments which do not explicitly include just transition activities are not counted as just transition transactions until the realisation of such downstream opportunities becomes explicit through an investment plan. These subsequent (follow on/downstream) investment plans are in turn understood and categorised according to their stated goals and ambitions. Waiting for downstream opportunities to only be recognised once they become realisable and once an investment plan is created decreases the likelihood of just transition window dressing or miscategorising such investments as part of the just transition.

Projects in cluster 3 and 4 in Diagram 6 are more justice driven than those in clusters 1 and 2. Projects in these clusters are either designed specifically to achieve one or more of the PCC's Just Transition Framework's three principles of justice; or they are decarbonisation projects which explicitly have just transition activities integrated into the fabric of a project designed to achieve explicitly both climate action and justice outcomes. Using an RMS approach, such projects can be understood as having their principle objective as a just transition or that they are decarbonisation projects with significant explicit just transition objectives.

Lowitt and Mokoena (2021) argue that in the South African context projects in all four clusters are all important and need to be funded and implemented in order to address the challenges of climate change, decarbonisation, poverty, unemployment and inequality. There is, however, an understanding and recognition that they exhibit different characteristics and will hence require different types of funding.

The Rio Marker System, which judges a project on its designed purpose seems to be a good fit with the four clusters of projects identified in the Lowitt and Mokoena research of 2021. It supports the evidence that in South Africa some projects are being designed to *principally* deliver decarbonisation outcomes and impacts, while other projects, initiatives, measures and investments are being designed and implemented to *principally* deliver a just transition. In a third category, projects and interventions which have a principal objective of decarbonisation but also include an explicit and *significant* just transition objective can be taken into account.

One of the original intentions of the RMS was to track the degree to which the Rio Summit themes were being mainstreamed. Understanding the extent to which just transition activity is currently being mainstreamed in South Africa would likewise be an enormously useful input to just transition policy, research and financing considerations.

The RMS could also offer an early methodological approach , or entry point into the complex issue of developing an initial quantification of finance flowing to just transition activity in South Africa. This quantification would want to include public and private sector funding from within South Africa and abroad. To achieve such quantification requires a mammoth effort to: identify and achieve consensus on what the appropriate and relevant South African just transition themes are; a working definition of each theme; the qualifying activities included in each theme; and the parameters and thresholds of such activities in order to qualify. In the RMS development this step took the DAC six years with all the resources of the OECD at its disposal. Developing an equivalent for a normative based thematic schema, which will be sufficiently rigorous and acceptable to the diverse stakeholders of the South African just transition, is daunting.

The concluding section suggests a possible avenue future researchers could consider in moving the needle on the issue of identifying just transition transactions and measuring their associated financial flows in South Africa.

An evidence-based, engagement-intensive approach is suggested using an extensive population of existing actual project, measure, initiatives, programming and investments. Activity goals in terms of outcomes, impacts and metrics can be used to inform a framework of what activities should count as just transition activities and how they could be measured. The population of projects for which data is collected could be used to inform the themes of a South African just transition and how such themes are defined and eligibility thresholds, criteria and activities decided upon.

Such an approach will enrich contextual specificity, marker appropriateness, added granularity and relevance. Such a process, which should be inclusive of all stakeholders, will be time-consuming, although an iterative approach could provide early indicative evidence while allowing for continuous improvement and progress.

4. A POSSIBLE AGENDA FOR FUTURE RESEARCH

In thinking about a possible RMS equivalent to quantify just transition financial flows in South African three key questions will need to be answered.

Initial screening

Because the proposed approach suggests that no *a priori*, subjective definition of a just transition project be adopted it will be necessary for future research to consider if any and all projects, programmes, measures, interventions, activities and investments will be considered as part of the evidence base or if there should be some minimum requirements which must be met for a project to be considered part of the sample population.

Some core research already exists covering both minimum criteria and exclusionary criteria. Sources include: the Development Bank of Southern Africa (DBSA) Green Bond Framework (2021), DBSA Environment and Social Safeguard Standards (2020), the JSE Green Bond and Climate and Sustainability and Climate Guidance (JSE, 2022) and international sources such as ILO Just Transition definition (2015).

For example, in the DBSA framework in order for an activity to qualify for assessment it must meet at least one of the following basic criteria:

- The activity contributes to climate adaptation, mitigation or increased resilience (including inter alia: GHG reduction, removing GHG from the atmosphere, encouraging the efficient use of resources, improvement of ecosystem services and bio diversity, promotion of sustainable land use and management practices, increased reuse of materials, access to clean and sustainable water and energy)
- The activity aligns to the National Development Plan objective of an environmentally sustainable and equitable transition to a low carbon economy for South Africa,
- The activity must align to one or more of the Sustainable Development Goals

In terms of exclusions, the DBSA framework will not consider a project or investment if:[5]

- The activity is carbon intensive
- The activity is based on fossil fuels
- The activity is based on nuclear power
- The activity negatively impacts (does harm to) the environment
- The activity undermines human rights
- The activity creates jobs which do not meet South African labour legislation requirements
- The activity requires land use restrictions which result in involuntary resettlement of communities
- The activity undermines cultural heritage and the lifestyle of indigenous people

Engagements on the issues in this paper circulated with researchers attracted strong and diverse opinions regarding these population sample inclusionary and exclusionary criteria. Some thought the inclusionary criteria set the bar too low and lacked ambition and the ability to meaningfully transform the lives of workers and communities impacted by climate change and decarbonisation activities. Specifically, doubts were raised about whether aligning with a single sustainable development goal would be a useful selection criteria as it was argued that virtually any sustainable project in the real economy would meet at least one Sustainable Development Goal. Issues with the lack of specificity of the definitions applied to the exclusions (especially concerning oil and gas) were also noted.

The only area of concurrence across all engagements on the research output was in relation to stakeholder engagement. There was consensus that a project, measure, activity, programme or investment guards Standards. which was not based on meaningful engagement with impacted workers and/or community members should not be included as part of a sample population. This would suggest that a foreign direct investment of a 1 000 person green sector factory in Mpumalanga, which creates decent jobs, would not qualify as a just transition investment if the owners failed to engage with the local community and stakeholders.

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[5] Definitions from DBSA Environmental and Social Safeguard Standards are available at https://www.dbsa.org/sites/default/files/media/documents/2021-03/DBSA%20Environmental%20and%20Social%20Safeguard%20Standards%202020.pdf

Just transition themes

The key foundation of a future research agenda is to identify and define a set of context appropriate just transition themes which collectively articulate the breadth of activities that will support the transition to net zero in South Africa being a just transition in which no one is left behind. The themes need to be generic enough to cover projects and initiatives across sectors, geographies, beneficiaries and levels of ambition; while being specific enough so that a just transition tag has meaning and is not a catch all.

The lens through which such themes are considered will differ across stakeholders (some will highlight a political view, others an ideological view, while others may focus on a developmental, societal or industrialisation lens). Levels of ambition and final impact will also differ substantially. A possible methodology for future research could be to use existing research, benchmarks and consultation processes to inform a high-level starter list of possible themes and their broad parameters. On the ground, projects which pass an initial screening process, such as described above, could then be used to expound, examine and stress test the suggested themes and their definitions, criteria and qualifying activities. In this way desktop research and top-down thinking can be married with experiential input and learning from on-the-ground actions to produce a more robust iteration of themes that will be a basis of ongoing just transition and just transition finance thinking. This learning by doing approach is similar to that undertaken to develop the RMS.

The benchmarking and disclosure work of the World Benchmarking Alliance, Climate Action 100+, JSE Guidance and ICMA Issuers Guidance covered above provide a solid starting point for a set of themes around which to base initial engagements and considerations. These could be added to, such as the TIPS's Workers Voices engagements (TIPS, 2021), the PCC's Multi Stakeholder Conference (PCC, 2022b) and the Just Transition Finance Roadmap project sample in Lowitt and Mokoena (2021). A review of these collective inputs suggests that future researchers could consider an initial slate of potential just transition themes appropriate for a South African context, including:

- Decent job creation,
- Economic diversification,
- Human capital capacity and capability development,
- Improved access to services,
- Restoration and sustainable utilisation of natural capital, and
- Social protection.

The pivotal work of a future research agenda would be use expert knowledge, opinion and most importantly project-based evidence to posit two things. First, a definition for each chosen theme. The theme definition will answer the essential question " an activity should be classified as (for example) decent job creation if …". Second, the future work needs to identify criteria for eligibility. Eligibility criteria answer the question (for example) "activity x contributes to….." and is thus eligible to be counted as a decent job creation activity.

So, for illustrative purposes, decent job creation could be considered an appropriate South African just transition theme by future researchers. A straw dog definition and eligibility criteria against which they could test on the ground project and programme evidence could be something along the lines of Diagram 7.

Diagram 7: An illustrative example of a theme definition and criteria for eligibility (decent job creation)

DECENT JOB CREATION	
Definition: An activity should be classified as Decent Job creation if:	*It involves opportunities for work that are productive and deliver a fair income, security in the workplace and freedom to organise, as per existing South African labour legislation*
Criteria for eligibility: The activity contributes to:	*•Enterprise development for workers and/or communities negatively impacted by climate action and climate change* *•Supplier development for workers and/or communities negatively impacted by climate action and climate change* *•Targeted Procurement in favour of firms in areas negatively impacted by climate action and climate change, and/or businesses owned by workers or community members negatively impacted by climate action and/or climate change* *•Replacement jobs at comparable wages and skills level as job lost* *•Replacement livelihoods for opportunities lost through climate action*
Examples of typical activities	** A new production facility is opened and creates new permanent jobs for place-based workers impacted by climate action* **An incubator project is established in a place where community livelihoods have been negatively impacted by climate change or climate action* **An agrivoltaic farm is established to be owned and operated by workers who lost their jobs through climate action*

*Source: O*wn design.

Diagram 8 illustrates an equivalent straw dog for a possible restoration and sustainable utilisation of natural capital theme.

Diagram 8: An illustrative example of a possible theme definition and criteria for eligibility (restoration and sustainable utilisation of natural capital)

RESTORATION AND SUSTAINABLE UTILISATION OF NATURAL CAPITAL	
Definition: An activity should be classified as Restoration and Sustainable utilisation of natural capital if:	*The project or company protect, restore, rehabilitate and/or promote the sustainable use of terrestrial ecosystems*
Criteria for eligibility: The activity contributes to:	**rehabilitation of contaminated land and waterways* **land and water restoration and cleaning* **productive use of acid mine drainage* **re-establishment of biodiversity* **conservation of biodiversity* **re-establishment of traditional land uses* **sustainable site repurposing* **increased sustainable food security* **regenerative and sustainable agriculture*
Examples of typical activities	** a waterway is cleaned and rehabilitated so that new regenerative agricultural activity can be undertaken* **substitution of water intensive food crops with more sustainable indigenous food crops* **removal of alien invader vegetation*

Source: Own design.

When these two illustrative examples were scrutinised by researchers and practioners in the field, a range of issues were raised concerning virtually every aspect spanning the need for specific technical definitions for individual words such as biodiversity, rehabilitation, enterprise development and incubator to in-principle arguments about whether livelihood opportunities which provided variable incomes and/or below minimum wage incomes should be eligible for decent employment eligibility or not. In general most concerns were raised in terms of how high the bar would be set to qualify for a theme. Some commentators felt that in these early days of attempted codification the net of projects from which evidence is gathered should be cast as wide as possible. This is in contrast to those who felt that the bar for a just transition activity needs to be high enough to support meaningful progress in relation to the justice principles laid out in the PCC's just transition framework and that a bar which is too low runs the risk of making a just transition label meaningless.

Scoring system

Assuming a working consensus on project qualification (minimum requirements and exclusions), just transition themes, theme definitions and eligibility criteria could be agreed on as part of an iterative, learning-by-doing approach to just transition activity tagging. Future researchers could look at adapting the RMS scoring and weighting system as a means by which to approximate the quantity of finance flowing to just transition actions and activities in South Africa. The adoption of such a possible approach would allow public and private finance from the local and international financial ecosystem to be quantified and tracked.

There are two pressing challenges in thinking about a possible scoring system which future researchers would need to consider. The first is the need to possibly establish threshold levels at which a point would be awarded. In the RMS approach (explained above) if a project or activity has as its principle objective one of the identified themes; and if that activity meets the theme's definition and eligibility criteria then the project receives two points (because it is a principle objective. It would receive one point if it is a significant objective and zero points if it is not an objective). These points are awarded because of the purpose and the objective of the project. Although some practioners and researchers during the consultation process accepted the usefulness of this RMS approach in the early days of the just transition discourse, some felt that thresholds were required.

For example, if a R100 billion decarbonisation project has a significant objective of retraining impacted workers, and say in this capital intensive project this amounted to 50 workers – would the full R100 billion be used for a 40% weighting (1 point) such that the retraining of 50 workers allowed for a R400 000 million just transition finance calculation. How would this square with a R10 million project which has retraining of 200 workers as a significant objective (1 point and 40% weighting). In this second example, 200 impacted workers are retrained and associated with a R4million just transition finance calculation.

In the work of Lowitt and Mokoena (2021) it is argued that, given the scale of South Africa's unemployment, inequality and poverty challenges, all just transition projects should be financed irrespective of their level of ambition. This would suggest that thresholds need not be applied to a future RMS South African application. Those concerned with just transition window dressing and washing would argue against this view. It is a difficult issue which will need to be on a future research agenda.

The second pressing challenge in thinking about a possible scoring system for a possible South African RMS would be who could undertake the task of reading project narratives and submissions and allocating scores. Given that the proposed methodology is a research proposal to inform evidence-based thinking on tagging just transition activities and tracking associated financial flows, it would be natural for a research institution to take on such a scoring role. Research institutions would typically have neither the in-house expertise or resources to complete such an activity; nor the ability to commit to undertaking such an exercise over a period of years to ensure consistency of approach and comparability of emerging data sets. Future researchers would need to consider innovative institutional arrangements and collaborations to deliver on such an approach.

5. CONCLUSION

The next steps to better understanding whether projects are just transition projects would, as described in the previous section, require a process that starts with tracking multiple projects and investments in the affected communities and regions that are most impacted by decarbonisation.

Projects, investments, interventions and activities should be sourced from a wide range of programme and financial players including: multilateral and bilateral financial institutions, development finance institutions, commercial and investment banks, institutional investors and asset management companies, impact investors, donors, philanthropic organisations, non-governmental organisation, non-profit organisations, national, provincial and local government departments and agencies, and non-financial corporates (mining houses, utility companies).

Participating entities would be required to complete a template and possibly be available for follow-up face-to-face interviews.

The population sample, and indeed the entirety of the research effort, should attempt to align with existing work in the field globally and locally while also seeking to leverage existing processes and data such as GreenCape's collaboration with the PCC to collect data on climate finance flows in South Africa over the next three years.

The RMS approach may not be perfect but its purpose-driven approach (rather than an outcomes and impact approach) provides a starting point which allows for progress to be made in understanding just transition project tagging and associated financial flows. By defining just transition financial flows based on the objective of a project, researchers would be able to begin understanding the scale, nature, incidence of just transition activity and financing even in the face of a lack of consensus on how to measure and disclose just transition activity.

From a research perspective, it would allow for an understanding of what criteria have been met by the projects and investments, as per this framework. It would allow for a determination of the viability of the tag and track measures proposed and building more knowledge on an effective just transition that leaves no one behind.

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